

SMITHSONIAN MISCELLANEOUS COLLECTIONS

270

CATALOGUE

OF THE DESCRIBED

D I P T E R A

OF

NORTH AMERICA.

BY

C. R. OSTEN SACKEN.

[SECOND EDITION.]



WASHINGTON:
SMITHSONIAN INSTITUTION.

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PHILADELPHIA:
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ADVERTISEMENT.

THE present work was undertaken by Baron C. R. Osten Sacken, of Russia, as a revision and extension of a Catalogue of Diptera prepared by him twenty years ago, and published by the Smithsonian Institution in Volume III. of its Miscellaneous Collections. It is, however, not merely a new edition of the volume in question, but an entirely new work, constituting a valuable contribution to our knowledge of the entomology of North America.

SPENCER F. BAIRD,
Secretary Smithsonian Institution.

WASHINGTON, October, 1878.

P R E F A C E.

The aim of this work requires no explanation. A complete inventory of a branch of entomological science, at a given moment of its existence, is the best means for promoting its advancement. Nor does the imperfection of a publication of this kind require an apology; any fair-minded reader is aware that the chief merit to be expected is completeness, and that whenever this is fairly attained, the usefulness of the work will far surpass its shortcomings. It remains for me therefore, only to explain the rules that I have followed in preparing this Catalogue.

RELATION OF THE PRESENT CATALOGUE TO THAT OF 1858. The first Catalogue of North American Diptera, published by me twenty years ago, was, and was meant to be, merely a compilation of the existing literature on the subject. It brought together a mass of references to the descriptions of about 1800 species, scattered in more than one hundred different works and scientific papers. Although such a publication was an indispensable preliminary step before any study of the North American diptera could be attempted, it conveyed but a very vague idea of the actual composition of the North American fauna of diptera. It was impossible to ascertain, at that time, how many of the specific names, enumerated in the Catalogue, actually represented different species, and how many were mere synonyms; neither was it possible to know, whether the species were placed in the right genera, and even in the right families. In order to give an idea of the extent to which this statement is true, I will quote the genus *Trypeta*, which (excluding the three species named, but not described by T. W. Harris), contains forty-two

specific names in the old, and sixty-six in the new Catalogue. But, in comparing these two lists, we find that they have only *eleven* names in common. In other words, of the forty-two so-called species of *Trypeta* of the old Catalogue, only eleven are adopted now as specific names in that genus; the other thirty-one names proved, upon investigation, to be either synonyms, or to represent species which had been erroneously placed in the genus *Trypeta*, or else to be unavailable names, on account of the insufficiency of the descriptions. The difference between *eleven* and *sixty-six* (the number of species in the new Catalogue), represents therefore the addition made to the knowledge of the genus *Trypeta* in North America during the interval between the two catalogues. Other genera give similar results. Thirty-two species of *Dolichopus* were described previous to 1858; the present list contains fifty-nine; but both lists have only *two* specific names in common. Thirty of the earlier descriptions are unrecognizable and therefore useless. The old Catalogue contained 32 names of species of *Eristalis*, occurring in North America, north of Mexico; of these names only *nine* figure as species of *Eristalis* in the present Catalogue, although the definition of the genus has not been changed since then. The other names of the old Catalogue are either synonyms (*E. dimidiatus*, for instance, has been described under *six* different names), or they belong to other genera, as *Helophilus*, *Milesia*, even *Xylota*. The genus *Tabanus*, in the old Catalogue, contains one hundred and two names of species, from North America, north of Mexico; among these names only 36 could be adopted; the remainder are either synonyms, or absolutely unavailable, on account of the insufficiency of the descriptions. — These instances will suffice to show that the new Catalogue is, not merely a new edition of the old one, only supplemented by the new species, published between 1858 and 1878; it is a new work, prepared on a different plan.

The process gone through between two editions of a catalogue, (the compilatory and the critical edition), consists in forming collections, in determining them from existing descriptions, and thus making out the synonymies, and then working up each

family in monographs. It will be a long time of, course, before this last stage is reached in all the families of North American diptera, and for this reason, this new Catalogue, which represents the *actual* state of our knowledge of these diptera, is not entirely homogeneous; a portion of it only is synonymical and critical, and the rest is still a mere list of names, a compilation. The Catalogue may, in this respect, be divided into three groups of families, representing three stages of our knowledge of the species enumerated:

1. The families of the first group have been worked out in monographs, containing comparative descriptions of all the species (as far of course, as represented in the collections), with analytical tables, or else with figures, to facilitate identification. Such families are the *Dolichopodidae*, *Ortalidae* and *Trypetidae* (monographed by Dr. Loew); the *Tipulidae brevipalpi* and *Tabanidae* (monographed by myself). The beginning of a similar work was made by Mr. Loew for the *Ephydrinidae* and *Sciomyzidae* and by me for the genus *Syrphus*.

2. In the families of the second group, collections have been formed, a certain number of earlier descriptions have been identified and synonymies made out; many new species were described; but a monographic treatment is still wanting. Such families are the *Asilidae* (with the exception of the section *Asilina*), the *Bombyliidae*, *Syrphidae*, *Tipulidae longipalpi*; also the *Empidae*, *Miluidae*, *Cyrtidae*, *Bibionidae*, *Mycetophilidae* and a number of the smaller families among the *Muscidae acalyptræ*.

3. In the families of the third group, collections have been formed, but they are, for the most part, not named. The Catalogue, in such families, is a mere compilation of references to descriptions by earlier writers. Such families are: the *Culicidae*, *Chironomidae*, *Conopidae*, the whole group of *Muscidae calyptræ* and the section *Asilina*.

COLLECTION OF TYPE-SPECIMENS. A difference between the old and the new Catalogue, perhaps more important than that already explained, consists in the fact, that the majority of the species

enumerated in the new Catalogue, *are represented in a collection*. The collection of diptera of the Museum of Comparative Zoölogy in Cambridge, Mass., contains what may be called the typical specimens of this Catalogue, that is the types of the descriptions published by Mr. Loew and by myself, as well as the species identified by him or by me, from earlier descriptions. That collection thus contains a little over 2000 named and described species of diptera from North America*), north of Mexico, besides a considerable accumulation of unnamed and undescribed materials. In that collection the american dipterologist now possesses an advantage not shared by his European colleagues, and that is, of having very nearly all the typical specimens, necessary for his work, collected in the same spot. It is highly desirable that this advantage should, as far as possible, be maintained, and that describers of new species should deposit their types in the same Museum, which offers the best guarantees of their permanent preservation. Sixty years ago, Wiedemann (in the first chapter of his *Magazin für Zoologie*), foreseeing the future difficulties of dipterology, suggested the formation of a central, or as he called it, *normal* Museum, in some European city, to contain types of all the described species; no new species were to be published, without previous comparison in that Museum. May the Museum in Cambridge realize that idea for America!

LITERATURE. The literary references, which I give in the notes, are not meant to be a complete index of dipterological literature, but merely a guide to beginners, who might be easily deterred by the preliminary work to be gone through, before attempting the study of any family. Those who intend to go deeper into the subject will have to form a more complete index for themselves, by looking over the yearly entomological Records**), as well as the works in the libraries. That the majority of the papers quoted by me are those of Dr. Loew, arises from the fact that for the last 30 years he was the prin-

*) These species are marked with a star in the Catalogue.

**) A yearly Record on the progress of entomology is published in Germany since 1838, in Wiegmann's *Archiv für Zoologie*. This

cial dipterological writer in Europe and that the study of his papers cannot enough be recommended.

SYSTEM. The systematic distribution of the diptera and the natural affinities of some of the larger and smaller groups, are still matters of uncertainty. I have preserved, with slight modifications, the arrangement adopted by the most recent writers. It has the advantage of adapting, as much as possible, the division in *Orthorhapha* and *Cyclorhapha*, to the sequence of the families, as found in Meigen and other early writers. The Xylophagidae, Stratiomyidae, Coenomyidae, Acanthomeridae, Tabanidae and Leptidae seem to form a natural group, within which it is impossible to bring about a satisfactory linear arrangement. I placed the Asilidae between this group and the Bombylidae, in order to bring together the families provided with a posterior intercalary vein. But I am not at all sure whether this is not a character of secondary importance, and whether Dr. Schiner was not right in placing the Bombylidae nearer to the Tabanidae. The relationship of the Blepharoceridae, Psychodidae, Cyrtidae and Therevidae is likewise uncertain. Orphnephila and Dixia are altogether *incertae sedis*.

Although I consider the *Aphaniptera* as directly related to the *Mycetophilidae*, I have omitted them from my list, because they have hitherto formed a separate object of study.

GEOGRAPHICAL RANGE. The region, embraced in the present Catalogue is the same as that of its predecessor: all North America, north of the Isthmus of Panama, including the West-Indies. But, instead of enumerating the species promiscuously, as it was done in the earlier Catalogue, I have, within each genus, separated the species occurring north of the Mexican

Record was prepared by Erichson from 1838 to 1847; by Schaum from 1848 to 1852; by Gerstaecker from 1853 to 1866; by Brauer from 1867 to 1870; and by Bertkau since that year. In England, the *Zoological Record*, published yearly since 1864, also contains an admirably prepared review of entomological publications. The frequent perusal of these Records cannot enough be recommended to those who wish to become thoroughly acquainted with the literature of any branch of entomology.

boundary, from those which are known to belong south of that line. A species, belonging to two groups simultaneously is placed in the earlier group; within each group the species are arranged alphabetically. — This change was rendered necessary by several considerations of expediency. In the first place, the work of criticism is much more advanced for the diptera of the United States and especially of the northern and middle States, than for those of Mexico, Central-America and the West-Indies: the reason is, that the bulk of the available collections came from the former regions. It was found expedient, therefore, to separate the uncritical and merely compilatory portions of the lists from those, that are more carefully sifted. At the same time, this arrangement offers another advantage in the better survey it affords of the geographical distribution of the diptera. Any one, running over the Catalogue, will now be able at a glance to form an idea of the character of the fauna of the temperate regions of North America, as distinguished from the tropical and subtropical faunae. Finally, this arrangement will be found very convenient in putting the Catalogue to the principal use for which it was intended, that of identifying species of diptera with the existing descriptions. As the Western, and especially the Californian fauna, is very different from the fauna of the Atlantic States, I have formed a third, intermediate group of those species in each genus, that are peculiar to that fauna. Whether this distribution in two or three groups should be maintained in the future editions of the Catalogue, is a question which will have to be decided then, as it has been decided now, on considerations of practical expediency.

Many species living in the lower and warmer regions of Mexico, also occur in Texas, and in the southern States in general. On the other hand mexican species from the higher altitudes, (from Mexico, Puebla etc.) extend quite far north, along the high plateau of North America and in the Rocky Mountains. Thus *Dejeania corpulenta* Wied. and *Dejeania rutilioides* Jaenicke, both first described from Mexico, were found by me in the Rocky Mountains. It is only recently, since I examined the mexican species in the collections in Darmstadt and in Turin,

that I was struck with the relationship of the Western and of the Mexican fauna and have been able to identify several species, published by me as new, in my *Western Diptera*. California partakes of this relationship, and shows, at the same time, singular and unexpected coincidences with Europe, not shared by the eastern United States. Future describers of western and southern species will have to bear these facts in mind.

LOCALITIES. The scope of this work did not allow much detail in the matter of localities. Still, as much as the given space allowed, I have inserted the data which I possessed on the subject. Describers of insects, and especially of exotic forms, are often very careless about statements of that kind. It is very probable, for instance that many species, described by Macquart as coming from Philadelphia or Baltimore, were merely *sent* from those cities, but collected somewhere else; some of these species have since been received from Texas only. It is to be hoped that future describers will be more accurate about localities *and their altitudes*. California and Mexico, in different altitudes, contain several different faunas and the study of the geographical distribution of insects would reach very erroneous conclusions, if it did not discriminate between these faunas.

SPECIES COMMON TO EUROPE AND TO NORTH AMERICA. A very considerable number of European species is also found in North America, without belonging in the number of imported insects. Some of the species, common to both continents, do not show any perceptible differences; in others, a difference exists, but not such as could be considered a specific character. And thus, by gradations, a point is reached, where the specific difference becomes evident*). A careful study of almost any species, considered as identical, may unexpectedly disclose a minute, but sometimes important distinctive character. Hence all the species of the class in question must be considered as open to challenge.

*) About the species common to both continents, and the gradations occurring in the specific differences, compare Loew, in Silliman's Journ., Vol. XXXV.I, p. 317.

Authors differ in their mode of treatment of species, the identity of which is doubtful; some prefer at once to describe them as new, others assume the identity, until the difference is proved. For several reasons of a purely practical kind, I prefer the latter method, thus following the principle, laid down by Fabricius (Philos. entomologica): *Locus natalis speciem nunquam distinguit*. Once described as a new species, without indication of its distinctive characters, the species escapes attention; on the contrary, it invites one's notice and challenges criticism, as long as it is quoted as common to both continents. A time will come when it will be possible to subject that whole class of species to a thorough comparative study.

SYNONYMY. It has been my effort throughout to make sure, as much as possible, that every name, which figures in the list, should actually represent a different species. This is reached, in a certain measure, for the fauna north of Mexico (with the exception, of course, of those families, which have not been worked at all: the Muscidae calypterae etc.). To attain this result, I have *first*, made out a number of synonymies by means of an attentive reading of the descriptions; and, *secondly*, I have visited the Museums in London, Paris, Lille, Berlin, Frankfort, Darmstadt, Turin and Vienna, and have seen the types of descriptions, which they contain. Any one, who has visited public Museums for the purpose of examining types of descriptions, knows, that even under the most favorable circumstances, that kind of work is not like work done at home (especially in the difficult families). Moreover, the study of types of descriptions must be based upon a previous knowledge, and a thorough one, of the corresponding species. As I had no collection with me for comparison, and had to rely on my memory, and as my knowledge in the different families of diptera is very unequal, and, in some of them very small, I am far from having exhausted the study of the North American types, contained in those Museums. I am also far from believing, that what I made out is always free from error. Those who in future will take up single families for monographic work, are therefore strongly recommended not to take for granted the

synonymies which I give, but to form an opinion for themselves. For synonymies, which are borrowed from other authors, the authority is always quoted in brackets []; synonymies without such a quotation, are my own.

NOMENCLATURE AND PRIORITIES. Readers of the Catalogue will often find, among the synonyms, names which, according to rule, should have the priority, being of earlier date than the adopted specific name. In such cases, I have discriminated between my rôles of a monographer and of a catalogue-maker. In those families, which I have described monographically (*Tipulidae brevipalpi*, *Tabanidae*, the genus *Syrphus*), I have settled the synonymy in a way that, as far as my knowledge goes, I consider as final. In other portions of the Catalogue, the question constantly arose, whether to substitute uncertainty, for certainty, that is, whether specific names by Loew, the types of which exist in the collection of the Museum of Comparative Zoölogy, had to be replaced by their *more or less probable* synonyms from Messrs. Macquart's and Walker's writings? In such cases I have generally given Dr. Loew's names the first place, leaving the question of priority open for the monographer of the future. In the few cases, where I have acted differently, I have given my reasons in a note. Likewise, as a catalogue-maker, I have not replaced current names by some older ones, which I happened to have discovered; the latter will be found in the synonymy. Thus, in looking over the Banksian collection in London, I found that the undoubted type of Fabricius's *Laphria grossa*, is nothing but the common *L. tergissa* Say. In the same way, *Chrysops variegatus* Degeer, is the older name for the wellknown *Chrysops costatus* from Cuba, and *Milesia virginensis* Drury, the earlier name for *M. ornata* Fab. All these names, not being current, will be found in the synonymy.

Considerations of the same kind have influenced me in the matter of generic names. The name *Anastrepha* Schiner, although earlier than *Aerotoxa* Loew, will be found among the synonyms, because it belongs to the future monographer of the *Trypetidae* to make changes in an existing monograph. I have but sparingly

given synonymies of generic names, and only as far as I have been able to verify them; merely copying previous authors I have avoided, as much as possible. These synonymies will be found very well worked out in Schiner's: *Fauna Austriaca*, *Diptera*.

In looking over Agassiz's *Index* and Marshall's *Nomenclator* many generic names were found to have been preoccupied in other departments of Zoölogy. Messrs. Harold and Gemminger (in their Catalogue of Coleoptera) thought that such names could, without inconvenience, be maintained, provided they did not occur in the same order of insects. In order to obviate the possible drawbacks of such a course, without losing its advantages, I hit upon the expedient of modifying such names by the addition of the syllable *Neo*. Nine generic names have been modified in that way. I do not pretend to impose the names thus formed on dipterology for ever, and look upon them in the light of a postponement of a change. A satisfactory and tolerably permanent settlement of many generic groups among the diptera still belongs to a distant future. It does no good therefore, to add scores of new generic names to the large number of useless ones already in existence.

Such generic names, that are not absolutely identical, but merely resembling, I did not alter. I share the belief of the above quoted authors that such names can, without any inconvenience, remain in use simultaneously, not only in different classes of animals, but even in different orders of insects. For this reason, I have not altered *Lasiosoma* Winnertz, 1863 (*Lasiosomus*, Hemipt. 1861), *Euparyphus* Gerstaecker, 1857 (*Euparypha* Mollusca, 1844), *Phortica* Schiner, 1862 (*Phorticus*, Hemipt., 1860), *Euxesta* Loew, 1867 (*Euxestus* Coleopt., 1858), *Brachydeutera* Loew, 1862 (*Brachydeuterus*, Fishes, 1862), *Euolena* Loew, 1873 (*Evolenes*, Coleopt., 1853), *Peronyma* Loew, 1873 (*Peronymus*, Volitantia, 1868), *Sympycnus* Loew, 1857 (*Sympycna*, Neuropt., 1840), *Eurosta* Loew, 1873 (*Eurostus* Hemipt. 1863), and some others.

I have not changed any names on philological grounds, but have adopted some few changes proposed by others, and which I considered reasonable.

TYPES OF FABRICIUS, MACQUART, WIEDEMANN AND WALKER. North American types of Fabricius, which must be preserved in his collection in Kiel, I have not seen. Most of them have been redescribed by Wiedemann. A few of the types of Fabricius in the Banksian collection, in the British Museum, also in the Museum of the Jardin des Plantes in Paris, I have been able to identify.

The majority of Wiedemann's North American types are preserved in the Zoölogical Museum in Vienna; but there are some few in the Museum in Berlin; and also in Westermann's collection in Copenhagen.

The types of the Museum in Vienna are contained in three different collections: the general collection, the so-called collection of Wiedemann, and the collection of Winthem. This is in accordance with the statements of Wiedemann at the end of his descriptions („im Wiener Museum“, „in meiner Sammlung“ and „in v. Winthem's Sammlung“). The original distribution of the types between these three collections, has not, however, been preserved intact; a large number of types from Wiedemann's collection is now found in v. Winthem's, and in some cases even the type, taken from Wiedemann's collection, has been replaced by another, wrongly named specimen*).

There is no doubt that this transfer of specimens took place at the time, when both collections were owned by v. Winthem. He must have begun the work of incorporating Wiedemann's

*) Thus the type of *Tabanus Reinwardtii* is not in Wiedemann's collection, where it should have been, but in v. Winthem's; the *T. Reinwardtii* at present found in Wiedemann's collection is an entirely different species. Exactly the same is the case with the type of *Asilus aestuans*, and a wrongly named specimen in Wiedemann's collection has led Dr Schiner to an erroneous conclusion about the identity of that species. Dr. Schiner's paper: Die Wiedemann'schen Asiliden (Verh. Zool. Bot. Ges. 1866), was written under the impression that the so-called collection of Wiedemann still contained all the types referred to it in the Auss. Zweifl., and the readers of that paper must not lose sight of that fact in making use of Dr. Schiner's statements. Nearly all the types of *Tabanus* are in v. Winthem's collection, but in other genera, for instance in *Volucella* most of the types are still found in Wiedemann's collection.

collection into his own, without quite finishing this operation. Dr. Hagen, who saw both collections at that time (in 1839), speaks of them as being united; („einverleibt“; see Stett. Ent. Zeitschr. 1844, p. 131). Under such circumstances, the study of these types requires some critical acumen, and a constant reference to both collections; but when attention is paid to Wiedemann's handwriting, to his statements about the number, the sex and the condition of the described specimens, and finally to the square, red labels, with which the types, thus transferred to v. Winthem's collection are marked, but little difficulty will be experienced in finding out the true typical specimens.

Mr. Macquart's types are chiefly preserved in the Museum in Lille, in that of the Jardin des Plantes in Paris, and in the collection of Mr. Bigot, in the same city; the latter collection also contains the diptera which Macquart had described from Mr. Serville's collection. Many types, principally those of the descriptions in the *Histoire Naturelle des Diptères*, I did not find in the above-named collections; they are very probably lost. And as many of the descriptions in that work are too short to be intelligible, they will have to be canceled. I even suspect that several of the species, described there as North American, and which it has not been possible to identify since, belong to other countries. One instance of that kind, (*Ptilogyna fuliginosa*, an Australian species), I have traced with certainty.

The types of Mr. Walker's descriptions (including those in the *Diptera Saundersiana*) are preserved in the British Museum.

Mr. Walker's writings on the order of Diptera are not better than his publications on Lepidoptera, Hemiptera and Orthoptera, as characterized by other authors. The same species are often found described under several different specific names and placed in different genera; well characterized species of a certain genus are placed in the wrong, sometimes in very distant, genera, or even in the wrong family. In the great majority of cases the descriptions of new species were drawn from a single, often hardly recognizable specimen; and when new species happen to be represented by more than one type-specimen, these are almost

sure to belong to different species. A few instances will suffice to illustrate the quality of the work of this author. Of the two North American *Eumerus*, described by Walker, the one proves, upon examination, to be a *Helophilus*, the other, the common *Mesograpta geminata*. A North American *Plecia*, described in the *Diptera Saundersiana*, puzzled me for a long time, until I saw the specimen, which proved to be a common female *Dilophus*, with a red thorax. Mr. Walker's *Thereva plagiata* is the well-known *Stichopogon trifasciatus*; his *Asyndulum tenuipes* is *Blepharocera capitata* Loew; and the common *Cordylura bimaculata* is described as *Lissa varipes*. When such blunders are committed with as striking and easily recognizable forms, as *Dilophus* or *Blepharocera*, what can be expected from Mr. Walker in the discrimination of species in such genera as *Culex*, *Bibio*, *Chrysops*, *Tabanus*, *Anthomyia* and the smaller acalypterous Muscidae! These doings were not confined to the North American portion of the collections, which Mr. Walker had under his care. To quote a single instance, the *Musca Aluta* n. sp. List etc. IV, p. 911; (the *patria* is given as „Lapland?“, „France?“), is represented in the British Museum by seven specimens, which are nothing but our old friend *Stomoxys calcitrans*; an eighth specimen is an *Anthomyia*. The passage at the end of the description: „In one wing of an insect of this species, the lower cross-vein sends forth a stump into the disc“, refers to this latter specimen, and this passage proves that Mr. Walker looked with some attention at it, without perceiving that it belonged to a different, and very easily distinguishable genus, and even to a different family!

Mr. Walker's identifications of the species of former authors are often, I may say in most cases, incorrect. Thus, when in his description of *Tabanus imitans* Walker, he compares it to *T. abdominalis*, Fabr., he means *T. fuscopunctatus*, Macq. which he took for *abdominalis*.

These facts are given as a warning for entomologists not to trouble themselves too much about the interpretation of Mr. Walker's descriptions, because in most cases, they will find themselves misled by the very data furnished by him. And it

is for this reason, that in several genera, in the choice of which I have been governed by considerations of expediency, I have enumerated Mr. Walker's species separately, at the end of those genera.

What prevented me from carrying out a more complete revision of Mr. Walker's types, was my want of knowledge in many of the families. As I said above, a great deal remains to be done by others. The question has sometimes been raised whether Mr. Walker's descriptions have any claim to priority at all? In my opinion they have, whenever they are recognizable; but they have none, whenever their title to priority can be established only by reference to the type of the description. The characters of some species are so well marked, that a superficial description of a single specimen is sufficient for the recognition of the species; on the contrary, in other species, sometimes in whole genera and families, the specific characters do not lie on the surface, but must be known beforehand or found out. Is such cases Mr. Walker, or any other describer of his type, merely describe *the specimen*, not the species; they do not know the species again, when they see it; consequently, the name they give to that specimen has no scientific meaning at all, and, it seems to me, no claim to priority. A case in point are the North American *Dolichopodidae*, described by Mr. Walker. The elaborate and painstaking criticisms of these descriptions by Dr. Loew (Monogr. etc. Vol. II), prove, that Mr. Walker, either from want of knowledge or from carelessness, did not pay the slightest attention to those characters which serve to distinguish the species of *Dolichopus* from each other, so that of the twenty-six so-called species, described by him, *not a single one* could be recognized. Now I ask whether it would be expedient, with Mr. Loew's monograph in hand, to determine Mr. Walker's type-specimens and then to grant to the names, attached to those types, the priority over Mr. Loew's names? I do not think so, and, for this reason, I would not undertake that task, even if it were possible*). The same reasoning

*) Many of Dr. Walker's species of *Dolichopus* are represented by female specimens, which it would be impossible to determine.

applies to Mr. Walker's descriptions in the genera *Chrysops* and *Tabanus*. A careful study of these descriptions convinced me of their uselessness; the examination of Mr. Walker's types showed, that in most cases, he did not know his own species again, that he described the same species several times in succession (the descriptions being sometimes by the side of each other in his works), that the confused specimens of different species in the same description. Under such circumstances, I did not feel justified in upsetting the nomenclature introduced by me in my monograph.

The authorities of the British Museum, in a most praiseworthy, and truly scientific spirit, have bestowed a great deal of labor upon preserving and labelling Mr. Walker's types. But the task of singling out the original type of the description, from among the specimens added afterwards, is by no means an easy one, often hardly possible. Furthermore, it is a well-known fact that authors are apt not to be very careful with their own types; to remove and displace them, when made aware of an error; and Mr. Walker, in this respect, was not an exception. Neither his, nor any other types can, therefore be implicitly relied upon, and we have, ultimately, to fall back on the descriptions. — In rescuing those of Mr. Walker's descriptions, which are available and in rejecting the remainder, as useless, we pursue, I think, a course consistent both with justice and scientific expediency.

THE NUMBER OF DESCRIBED NORTH AMERICAN DIPTERA. The number of described Coleoptera from North America, north of Mexico, in Mr. Crotch's Check List is 7450. It is impossible to make a similar statement for the diptera, because, as experience has shown, most of the earlier descriptions are entirely unavailable and represent species which exist merely on paper. The number of described diptera from North America, north of Mexico, contained in the Museum of Comparative Zoölogy in Cambridge, Mass., is a little over 2000. The number of available, but not yet identified, descriptions of earlier authors is not large; and thus we may safely assume that, excluding the

unavailable descriptions, the number of described diptera of North America, north of Mexico, will hardly reach 2500. But the undescribed materials, accumulated in the collections, if worked up, would largely increase, perhaps double, that number. Considering the little attention hitherto paid to the order of diptera, these figures seem to prove that the number of existing species of diptera in North America will easily reach and perhaps exceed the number of Coleoptera.

THE FUTURE OF AMERICAN DIPTEROLOGY. Of all orders of insects, the diptera offer probably the most difficulties to the describer. The reason lies in the minuteness of the characters, on which generic and specifics distinction are based. In consequence of this difficulty, there is and was more blundering in this order of insects than in any other, and the mischief done by the incompetent is greater here, than in any other order. By *incompetent* I do not merely mean those, who know little or nothing about diptera; I mean even dipterologists who attempt to write about a family of diptera before having made a special study of it. And in this respect, every one of us, in the course of his career, is often tempted to do some work, which he is incompetent to perform, and every one of us has, some time or other, actually done such work.

In order to preserve, as much as possible, American dipterology against the evils of incompetence, I attempted, several years ago, to draw up some recommendations as to the best course to pursue in that study (in A. S. Packard's Record of American entomology for 1868). As these recommendations have lost nothing of their appropriateness, I may be allowed to reproduce them here.

„If I am asked now what the *desiderata* for the future of this branch of science in America are, I would answer:

- „1. Continue the publication of North American diptera in monographs.“
- „2. Avoid as much as possible the publication of detached species, either singly, or in numbers.“

„The cases when the publication of detached species of Diptera can be really useful in the present state of american dipterology are rare, and will easily suggest themselves to the good sense of the unprejudiced.“

„Consciencious monographs are always useful.“

„Let monographs be prepared of the families of diptera on the same plan as the monograph of the *Dolichopodidae* by Dr. Loew, or of the *Tipulidae* by me. Let the series of these monographs begin with the larger forms and the more numerous families, as the Tabanidae*), the Asilidae, the Stratiomyidae, the Bombylidae, the Empidae etc. Such a basis being laid with those families, the study of which is comparatively easy, the difficult ones, as the Chironomidae, the Culicidae and the numerous groups of the Muscidae, will follow. The study of these difficult families must be the work of specialists. Mr. Winnertz, of Crefeld, Prussia, devoted more than twenty-five years to the study of the genus *Ceratopogon*, the genus *Cecidomyia* and the family *Mycetophilidae*. During that long period of patient collecting, drawing and describing, he published only four monographs of moderate size. And it is certain that, without such patient collecting, drawing and describing for a number of years, any monograph of such genera as *Ceratopogon* or *Sciara* would have been worthless. Diptera are not like the other orders of insects, where a superficial comparison of two specimens enables one, in most cases, to decide, whether they belong to the same species or not. Each family of diptera requires a special study and a dipterologist may be very well versed in some families, without being able to express any opinion with regard to questions, concerning others.“

„*Specialization* is therefore the motto of dipterology. Amateurs may collect and name diptera, but do not let them publish anything, until they have chosen some single family and nearly exhausted it by study and collecting. If they try such a course, they will find that the exhaustive study of a single

*) Since writing the above I have published a monographic essay on the Tabanidae.

family is far more remunerative, both in pleasure and in usefulness, than the random description of numerous new species."

But little reflection is necessary to prove that monographic work is the most advantageous form of work in descriptive entomology. It implies the greatest concentration of one's working power, and for this very reason, its greatest economy; its products are the most lasting, because a good monograph is not easily supplanted; they are the most useful, because they facilitate and encourage the study, instead of obstructing it, as some other kind of work is liable to do.

The productions of unconscientious and incapable writers ought not to obstruct better workers and thus to impede the progress of science. Let no one, attempting a monograph, be deterred by the number of earlier descriptions in the same family. The principal effort should be, to collect an abundant material, representing as nearly as possible the fauna of a given region in the family selected for work. With such a material the identification of previous descriptions becomes comparatively easy. With some perseverance and attention, the available descriptions will soon be identified and the residue may be neglected, as useless. It may happen that the whole, or nearly the whole of the previous descriptions proves to be unavailable; let not the work be prevented by it. Of the thirty-two earlier descriptions of North-American *Dolichopus*, all but *two*, were unrecognizable; this did not prevent Dr. Loew from writing a standard monograph of the genus. The next step for the monographer should be, to prepare descriptions of *all* the species, because it is a bad plan, in a monograph, simply to refer to the descriptions of previous authors*). By means of analytical tables, or of figures, the descriptions should be rendered accessible, enabling every one, with the monograph in hand, to get at the name of a given species.

*) Erichson expressed the same views in the Preface to his *Entomographien*, and the passage deserves to be reproduced here:

„Beschreibungen neuer Arten scheinen mir in den meisten Fällen nur dann ein wesentliches Fortschritt der Wissenschaft zu bedingen, wenn eine Uebersicht über die Abtheilung, der sie angehören, damit verbunden, und diese als ein Ganzes betrachtet wird. Es kann in solchen Arbeiten oft hinreichend sein, bei bekannten Arten auf schon vorhan-

It is greatly to be desired that the fauna of the Northern and Middle States should be worked up soon, in order that it may serve as a foundation for the study of the other faunas of the continent. The species, occurring around the centres of civilization should be described first, so as to have the species from the more distant regions *compared with them*. As matters stand now, the opposite state of things is very likely to happen; numerous Western species, brought by explorers, will be described, leaving the Eastern entomologist in doubt, whether the forms which he finds at his door, are the same species, or not.

I tender my sincere thanks to the authorities of the public Museums and owners of private collections, who have kindly assisted me in my work; the authorities of the British Museum, of the Museum du Jardin des Plantes, the Museum of the University in Berlin, the Imperial Zoological Museum in Vienna, and the public Museums in Lille, Frankfort, Darmstadt and Turin. Among the owners of private collections of exotic diptera, I owe a special tribute of gratitude to Mr. Bigot in Paris, Professor Bellardi in Turin and Mr. v. Roeder in Hoym (Anhalt).

Dr. Loew in Guben, my correspondent and collaborator for many years, was unfortunately prevented, by a sudden failure of his health, from assisting me during the preparation of this volume. I have nevertheless used many data, found in his letters, or taken down in looking over his collection of North-American Diptera, (the same, which now is in the Museum of Comparative Zoölogy in Cambridge, Mass.). The large share he has taken in the advancement of North American dipterology speaks for itself.

The greatest share of recognition however, belongs to the Institution under whose auspices, and at whose expense, the

dene Beschreibungen zu verweisen, im Allgemeinen habe ich aber gefunden, dass bei diesem Verfahren oft selbst die ausführlich beschriebenen Arten zweifelhaft bleiben, besonders wenn es darauf ankommt, sie von nahe verwandten zu unterscheiden, welche als bekannt vorausgesetzt, und nicht näher charakterisirt sind. Versucht man aber, diesen ihre wesentlichen Merkmale beizufügen, findet sich bald, dass man weit sicherer, und ohne merklich grossen Aufwand an Raum, zum Ziele gelangt, wenn man die sämtlichen Arten gleichmässig beschreibt.'

principal works on North American Diptera, beginning with the *Catalogue* etc. of 1858, have been published. There is not the slightest exaggeration in saying that, without the encouragement and the support, received from the Smithsonian Institution for the last 20 years, the study of North American diptera would have remained far behind the stage which it has reached at present.

The inherent limitation of a Catalogue like the present consists in the fact, that although it is more than a mere compilation, it is less than a monograph. In many respects, the task of the monographer had to be encroached upon: synonymies established, species transferred to the proper genera, European species, occurring in North America, recognized and introduced in the lists etc. The amount of latent labor of this kind, accomplished in this Volume, will reveal itself to those, who will take the trouble to compare it with my earlier Catalogue (for instance in the *Asilidae* or *Syrphidae*). There is some danger in carrying this kind of anticipatory epuration too far, because in performing it, we cannot expect to attain the thoroughness of a monograph. And it is in the belief, that I have reached the point, where it is time for me to stop, that I hand over my work to the public, with a full sense of its imperfections.

C. R. OSTEN SACKEN.

HEIDELBERG, Germany
June 1878.

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AUTHORITIES.*)

- AMYOT. — In the Annales de la Soc. Entom. de France, 1855, Bulletin, p. CIV; remarks upon *Cecid. tritici* Kirby and the identity of the european and american insect, known under that name.
- BELLARDI, Luigi. — Saggio di ditteologia messicana. — Two parts and Supplement; five plates. — In the Mem. della Reale Accad. delle Scienze di Torino, Ser. II, Vol. XIX, 1859, Vol. XXI, 1861—62; also published separately, in 4°, Part I, 77 pages, 2 plates; Part II, 99 pages, 2 plates; Supplement, 28 pages, 1 plate.
Contains the descriptions of about 170 new species of mexican diptera orthorhapha.
- BERGENSTAMM und LOEW (P.). Synopsis Cecidomyidarum. — In the Verh. Zool. Bot. Ges. 1876.
A Synopsis of all the litterature on the subject, including the N. A. species; very thorough and complete
- BILIMEK, Dominik. — Fauna der Grotte Cacahuamilpa in Mexico. — In the Verh. Zool. Bot. Ges. in Wien, 1867, p. 901.
Pholeomyia leucozona n. gen. et sp.
- BIGOT, Jacques. — Worked up the diptera for Ramon de la Sagra's: Histoire physique, politique et naturelle de l'île de Cuba. Paris 1857 (with a plate). Published in french and in spanish; the french edition is quoted in the catalogue, the spanish has a different pagination.
Twenty five new species.
- " Diptërorum aliquot nova genera. — In the Revue et Magazin de Zool. 1859, p. 305—315; Tab. XI.
Hystriisymphona niger n. gen. et sp., Mexico.
Cryptineura hieroglyphica, n. gen. et sp., United States (= *Chrysogaster nitidus* Wied.)
- " Diptères nouveaux ou peu connus.
V. Asilides exotiques nouveaux (Ann. Soc. Ent. Fr. 1875, p. 237—248).

*) It was not intended to give here the full titles of *all* the works and papers quoted in the present volume, but merely of such as contain descriptions of north-american diptera.

- VI. Espèces exotiques nouv. des genres *Sphæxa* et *Volucella* (l. c. p. 469—482).
- VII. Espèces nouv. du Genre *Cyphomyia* (l. c. p. 483—488).
- VIII. Curie des *Phasides* l. c. 1876, p. 389—400.
- IX. X. Genre *Somomyia* Rondani (l. c. 1877, p. 35—48; 243—259).
These papers contain 23 new spec. from Mexico, *two* from the United States, *two* from Haiti, *one* from Jamaica.
- BIGOT, Jacques. — (without title) in the Bullet. de la Soc. Ent. de Fr. pag. CLXXIV, 1875.
Therconomyia californica, n. sp. California.
- „ (without title), l. c. pag. XXVI, 1877.
Carlottaomyia morens, nov. gen. and spec. from Mexico (= *Diacrita costalis* Gerst.)
- „ (without title), l. c. pag. LXXIII, 1877.
Macroceromyia nov. gen. (Xylophagidae), Mexico.
- BOSC. — *Ceroplastus carbonarius*, from Carolina, described in the Dict. d'Hist. Nat., Paris 1802—1804, in 24 Vol., 8vo, chez Déterville et Roret; also in Nouveau Dict. d'Hist. Nat. Paris 1816—19, in 36 Vol.
- BRAUER, Friedrich. — Monographie der Oestriden, Wien 1863. — With ten plates.
The most complete monograph in existence on the subject; it contains the descriptions of all the known american species.
Cuterebra scutellaris, n. sp. United States.
- „ Beschreibung neuer und ungenügend bekannter Phryganiden und Oestriden. — In the Verh. Zool. Bot. Ges. in Wien 1875.
Hypoderma bonassi, n. sp. (larva), occurring on the american buffalo.
- BURGESS, E. Two interesting american diptera. — In the Proceed. Boston Soc. N. H. 1878, p. 320—324, with figures.
Glutops singularis, nov. gen. et sp.; *Epibates Osten Sackenii* n. sp.
- CLARK, Bracy. — Observations on the genus *Oestrus*. — In the Trans. of the Linn. Soc. Vol III, 1797.
Oestrus cuniculi, n. sp., Georgia.
- „ An essay on the Bots of Horses and other Animals. London 1815, 4°; with two plates.
Cuterebra horripilum and *Cephenomyia phobifer*, n. sp.
- „ Addenda, 1848, 4°, with one plate.
Cuterebra atrox, n. sp., Mexico.
- „ Of the insect called *Oistros* by the ancients and of the true species intended by them under this appellation etc. To which is added a description of a new species of *Cuterebra*. In the Trans. Lin. Soc. Vol XV, p. 402, 1826.
Cuterebra fontinella, n. sp. Illinois.
- COQUEBERT, A. J. — Illustratio iconographica insectorum quae in museis parisis observavit et in lucem edidit F. C. Fabricius, praemissis ejusdem descriptionibus. Paris, 1799—1804. In fol. min. With

- 30 plates. Several American species are figured in this work, but no new ones described.
- CURTIS, J. — Description of the Insects brought home by Commander J. Clark Ross. (In his Voyage to the Arctic Regions, 1831.)
Chironomus borealis, *Tipula arctica*, *Helophilus bilineatus*, *Tachina hirta*, *Anthomyia dubia*, and *Scatophaga apicalis*, are new.
- DEGEER, Baron Charles. — Mémoires pour servir à l'Histoire des Insectes. Stockholm, 1752—78. 7 vols. Several American species are described in the 6th vol.
- DESVOIDY, Robineau. — Essai sur la tribu des Culicides. In the Mémoires de la Société d'Hist. Nat. de Paris, vol. iii, p. 390—413. 1827.
 Five new species from N. America and the West Indies.
- ” Essai sur les Myodaires. In the Mémoires des savants étrangers de l'Académie des Sciences de Paris. Vol. ii (1830).
 This Essai is a 4to. volume of more than 800 pages, containing a new systematical arrangement of the whole group, and numerous descriptions (among which some eighty new North American species).
- ” Histoire naturelle des diptères des environs de Paris. Paris 1863. (Vol. I, XVI and 1143 pages; Vol. II, 920 pages).
 Posthumous work; contains short descriptions of a few N. A. diptera; no new ones.
- DRURY, Drew. — Illustrations of Natural History, wherein are exhibited upwards of two hundred and forty figures of exotic insects. London, 1770—82. 3 vols. (A new edition of this work has been published in 1837, by Westwood, under the title of Illustrations of Foreign Entomology.) Eight N. American and West Indian species are figured.
- DUFOUR, Léon. — Révision et Monographie du Genre *Ceroplatus*. In the Annales des Sciences Naturelles, 2e série, vol. xi, p. 193 (1839), with figures. Contains the description of *Ceroplatus carbonarius* Bosc, from Carolina. Conf. Bosc.
- DUMÉRIL, A. M. C. — Considérations Générales sur la classe des Insectes, etc. Strasbourg et Paris, 1823. With plates. No new species.
- ERICHSON, F. W. — Die Henopier. Eine Familie aus der Ordnung der Diptern. (In Erichson's Entomographien, Berlin, 1840.) *Ocnusa micans*, new species from Mexico.
- ESCHSCHOLZ, Dr. J. F. — Entomographien, in 8vo. Berlin, 1823.
Empis lauecentris, and *Musca obscoena*, new species from Unalaska.
- FABRICIUS, J. C. — Systema Entomologiae. Flensburgi, 1775.
 ” Mantissa Insectorum. 2 vols. Hafniae, 1787.
 ” Entomologia Systematica. 4 vols. Hafniae, 1772—94; Suppl. 1798.
 ” Systema Antliatorum. Brunsvigae, 1805.
- FABRICIUS, O. — Fauna Groenlandica. Hafniae et Lipsiae, 1780. 8vo. Eighteen diptera are described. A useful commentary to this

book, containing the true interpretation of several of the species, may be found in Schiödte's article on the Arthropods of Greenland. See Schiödte.

FITCH, Dr. Asa. — An Essay upon the wheat-fly and some species allied to it. Albany, 1845.

This is the first edition, which was published in the American Quarterly Journal of Agriculture and Science, vol. ii, No. 2. It contains the descriptions of *Cecidomyia tritici*, Kirby; *Cec. caliptera*, n. sp.; *Cec. thoracica*, n. sp.; *Cec. tergata*, n. sp. A second edition appeared in 1846, in the Transactions of the N. Y. State Agricultural Society, vol. v. A new species, *Cec. cerealis*, is separated in this edition from *C. caliptera*, and full descriptions with figures of both are given.

" The Hessian Fly. Albany, 1846. (2d edit. 1847.) With a plate. Published originally in the American Journal of Agriculture and Science, vols. iv, v. (1846). Reprinted with some additions in the Transactions of the N. Y. State Agricultural Society, vol. vi, p. 316—376 (1846; in pamphlet-form it bears the date of 1847).

" *Cecidomyia salicis*, n. sp., described in the American Quarterly Journal of Agriculture and Science, vol. i, p. 263.

" Winter Insects of Eastern New York. — In the American Journal of Agric. and Sci., vol. v, pp. 274—284.

N sp. *Culex hiemalis*, *Chironomus nicorinundus*, and *Trichocera brumalis*.

" Survey of Washington County, New-York. — In the 9th. vol. of the Transactions of the N. Y. State Agricultural Society.

Several species occurring in that locality, are mentioned in a popular way.

" First and Second Report on the Noxious, Beneficial, and other Insects of the State of New York. Made to the State Agricultural Society pursuant to an appropriation for this purpose from the Legislature of the State. Albany, 1856. (With four plates.)

Before the publication of the Second Report, the first had been distributed under the title of First Report, etc. 1855. This work contains 21 new American diptera.

" Third, fourth and fifth Reports on the Noxious, beneficial and other insects of the State of New York, made to the State Agricultural Society, pursuant to an annual appropriation for this purpose from the legislature of the State. Albany, 1859. With four plates and many woodcuts.

Cuterebra emasculator n. sp. and several *Cecidomyiæ*.

" Sixth, seventh, eighth and ninth Reports etc. etc. Albany, 1865. — With four plates and several woodcuts.

Contains a new edition of the papers on *Cecid. tritici* and *destructor*.

All these reports appeared successively in the Trans. of the N. Y. State Agric. Society and were collected and issued after-

wards as separate volumes: Volume I, containing Reports 1 and 2; Vol. II, Reports 3—5; Vol. III, Reports 6—9. Each volume has a title-page, as given above, and a complete index of the contents. In the *first* and *third* volumes the pagination runs through the whole volume; in the *second* volume, a new pagination begins with every report, but, at the same time, the species successively discussed are numbered and these numbers run through the whole volume. For this reason, in quoting this *second* volume, I had to give the *number* of the species referred to, while in quoting the other two volumes, I give the page. — Dr. Fitch's following Reports, which I have seen up to the 12th (1867), do not contain any new species of N. A. diptera.

FORSTER, J. R. — *Novae Species Insectorum. Centuria I.* London, 1771.
Tabanus americanus, n. sp. (*T. ruficornis*, Fab.)

GRAY, G. R. — In E. Griffith's *Animal Kingdom*. (London, 1824—33. 16 vols. With engravings.)

Several N. American species are figured in the 15th vol. The descriptions by Gray are very incomplete.

GREEN, Dr. — *Natural History of the Horse Bee*. (In *Adam's Medical and Agricultural Register*, vol. i, p. 53; and in *New England Farmer*, vol. iv, p. 345.)

Gastrus veterinus, Fab.

GUÉRIN et PERCHERON. — *Genera des Insectes*. Paris, 1831—35. (With plates.)

Culex mosquito, R. Desv., from Cuba; and *Tabanus flavus*, Macq. (Syn. of *T. mexicanus* Lin.) from the U. States, are figured.

GUÉRIN-MÉNEVILLE, F. E. — Note sur deux Insectes Parasites de la cochenille qui font un grand tort à cette culture en Amérique. (Read in the Academy of Sciences in Paris on the 13th of Nov. 1848. Conf. Guérin's *Revue Zoologique*, 1848, p. 350.)

Baccha cochenillivora, n. sp. from Guatemala.

„ *Iconographie du Règne Animal* de G. Cuvier etc. Paris, 1829—44. The insects are in the last (7th) volume.

Leptis Servillei, n. sp. — United States.

Calobata ruficeps, n. sp. — Cuba.

Toxophora americana, n. sp. (figured, not described).

Cuterebra apicalis, n. sp. America.

GERSTAECKER, Dr. A. — *Beitrag zur Kenntniss der Hymenopteren*. — In the *Stett. Ent. Zeitschr.* 1856, p. 360.

Eulonchus smaragdinus, n. sp. California.

„ *Beitrag zur Kenntniss exotischer Stratiomyiden*. — In the *Linn. Entom.* Vol. XI, 1857, p. 261; Tab. III

N. Sp. *Cyphomyia* 3 spec., *Stratiomys* 2 spec., from Mexico; *Chauna ferruginea* from Cuba.

„ *Beschreibung einiger ausgezeichneten neuen Diptera aus der Familie Muscariæ*. — In the *Stett. Entom. Zeitschr.* 1860, p. 163; with a plate.

N. sp. *Pyrgota resperilio*, *pterophorina*, *Toxotrypana curvicauda*, *Diacrida costalis* from North-America.

GERSTAECKER, Dr. A. — Systematische Uebersicht der bis jetzt bekannt gewordenen Mydiden. — In the Stett. Entom. Zeit. 1863, p. 65, with a plate.

Leptomylas pantherinus, *Mydas lavatus*, *annularis* nov. sp. from N. America.

" Die zweite deutsche Nordpolfahrt in den Jahren 1869—70. Leipzig, 1874. Hymenoptera and Diptera by Gerstaecker; the latter are represented by four species, collected in East Greenland, lat. 73° — 75°: *Tipula truncorum* Meig., *Echinomyia aenea* Stäger, *Cynomyia alpina* Zett., *Calliphora groenlandica* Zett.

GROTE, Aug. R. — Description of two new species of North American Brachycerous Diptera. — In the Proc. of the Entom. Soc. Phil. Vol. VI, p. 445, 1866—67.

Sparnopolius coloradensis and *cinnatilis*, n. sp. Colorado.

HALDEMAN, Prof. S. S. — Description of several new and interesting Animals. — In the American Journal of Agriculture and Science, vol. vi, p. 193. With figures. 1847. (Reprinted in the Proceedings Boston Soc. N. H. January 1859.)

Cecidomyia robiniae, n. sp.

HARRIS, Dr. Thaddeus William. — Catalogue of the Insects of Massachusetts. In Prof. Hitchcock's Report on the Geology, Botany, and Zoology of Massachusetts.

Prof. Hitchcock's Report had two editions; in the first (1833), Dr. Harris mentioned only the generic names of the insects, adding the number of species belonging to each genus. In the second edition (1835), the specific names are also given; many of them are mere collection names, never having been published.

" A Treatise on some of the Insects of New England, which are injurious to Vegetation. Second edition Boston, 1852.

The first edition of this work was published in 1841, under the title of A Report on the Insects of Massachusetts, injurious to Vegetation. The second edition contains many additions.

" A Treatise on some of the Insects injurious to vegetation. Third edition. Boston, 1862. With 8 plates and 278 woodcuts.

Was published at the expense of the Commonwealth of Massachusetts and is provided with notes by different authors; those on the Diptera are by C. R. Osten Sacken. The quotations in the present volume are from this edition.

" Entomological correspondence. Edited by Samuel H. Scudder. — Boston, 1869.

Contains on p. 335—336 descriptions of *Musca harpyia* Harris (= *Musca domestica* Lin.) and *Musca familiaris* Harris (apparently the same as the European *Pollenia rudis*).

HAUSMANN. — Entomologische Bemerkungen. Braunschweig, 1793.

Syrphus trifasciatus, n. sp. = *Milesia ornata* Fab..

HOLMGREN, A. E. — Insecter fran Nordgroenland samlade af Prof. A. E. Nordenskjöld ar 1870. — In the Öfvers. Kongl. Vetensk. Ak. Förhandl. 1872, p. 100—105.

Contains thirty-nine diptera, among which *six* Ariciae, *one* Scatomyza, *one* Boletina, *one* Sciara are new.

ILLIGER. — Neue Insecten. — In the Magazin für Insectenkunde, Vol. I, p. 206.

Midas fulvifrons, n. sp. — Georgia.

JAENNICKÉ, F. — Neue exotische Diptern aus den Museen zu Frankfurt und Darmstadt. — In the Abhandl. d. Senckenb. Ges. Vol. VI; with 2 plates; also separately, in one volume, in 4°, 100 pages; Frankfurt, 1867. Thirty-four new species from Mexico and N. America.

KIRBY, Will. — Fauna Boreali-Americana; or the Zoology of the northern parts of British North America, by J. Richardson, assisted by W. Swainson and Will. Kirby. London, 1829—37. 4 vols.

The fourth volume, containing the entomological part, is by W. Kirby; nine new diptera are described. (*Culex punctor*, *Tipula pratorum*, *Arthria anulis*, *Empis luctuosa*, *geniculata*, *Tabanus affinis*, *zonalis*, *Musca cadaverum*, *mortisequa*.)

” A Supplement to the Appendix of Capt. Parry's Voyage in 1819, 1820, containing Mammalia, Birds, Fish, and Marine Invertebrate Animals, by Edw. Sabine; Land Invertebrate Animals, by W. Kirby, etc., in 4to. London, 1824.

Ctenophora Parrii, *Chironomus polaris*, n. sp.

KIRKPATRICK, J. — The army worm. — Article in the Ohio agricultural Report for 1861.

Exorista leucaniae and *E. Osten Sackenii*, parasites of the army-worm.

LAMARCK, J. B. — Histoire Naturelle des Animaux sans Vertèbres, etc. 1ère édit. 7 vols. Paris, 1815—22. 2e édit. 11 vols. Ibid. 1835—45.

The insects form the third volume of the first, and the fourth of the second edition. I have quoted the first edition. Some typical forms only of American insects are mentioned in this work, and no new species described.

LATREILLE, P. A. — Histoire Naturelle, générale et particulière des Crustacés et des Insectes. 14 vols. Paris, 1792—1805. (This work forms a part of Sonnini's Suites à Buffon.)

” Genera Crustaceorum et Insectorum, etc. 4 vols. Paris 1806. 7 et 9.

” The articles on Entomology in the Nouveau Dictionnaire d'Histoire Naturelle, etc. Comp. above Bosc.

All these works contain the mention or description of some typical forms from N. America, but no new species.

LEACH, W. E. — On the genera and species of Eproboscideous Insects. — In the Wernerian Transactions, vol. ii Edinburgh, 1817.

Olfersia Americana and *Ornithomyia erythrocephala*, n. sp. from N. America.

- LE BARON, William, M. D. — (State Entomologist for Illinois). — Second annual Report on the noxious insects of the State of Illinois, 1872.
Tachina (Exorista) *phyceitae*, n. sp.
- LINNÉ, Carol. a. — Systema Naturae, etc. Editio XII. Second vol. 1767.
 „ Amoenitates Academicæ s. Dissertationes variae Phys. Med. Botanicae, ante hac seorsim editae, nunc collectae et auctae. 7 Voll. cum tab. aen. 1749—69.
Asilus aestuans from Pennsylvania, n. sp.
- LOEW, Dr. H. — Beschreibung einiger neuen *Tipularia terrecola*. In the 5th vol. of the Linnaea Entomologica. Stettin, 1851.
 General observations on the genera: *Tiplogyna*, *Aporosa* and *Toxorhina*, and the descriptions of three new species, *Ap. rufescens*, *rivescens*, and *Tox. fragilis*, from the West Indies.
 „ Bemerkungen üb. die Gattung Beris. — In the 7th vol. of the Entomologische Zeitung Stettin, 1846.
 Several American species mentioned; no new ones described.
 „ Helophilus. — In the 7th vol. of the Entomologische Zeitung. Stettin, 1846.
 Monograph of the genus, mentioning some American species; *H. glacialis*, n. sp. from Labrador.
 „ Chauna, genus novum. — l. c. 8th vol. p. 370. Stettin, 1847.
Chauna variabilis, n. sp. from Cuba.
 „ Ueber *Tetanocera stictica*, Fab., und ihre nächsten Verwandten, etc. — l. c. 8th vol. p. 114. Stettin, 1847.
Tet. flavescens, n. sp. from Carolina.
 „ Ueber *Tetanocera ferruginea*, Meig. und die ihr verwandten Arten. — l. c. 8th vol. p. 194.
Tet. plumosa, n. sp. from Sitka.
 „ Bemerkungen über die Familie der Asiliden, etc. in 4to. Berlin, 1850.
Dasypogon anthracinus, n. sp. from Mexico.
 „ Ceria. — In the Neue Beiträge zur Kenntniss der Dipteren, ly Dr. Loew. Erster Beitrag. Berlin, 1853.
 Monograph of the genus; *Ceria pictula* from the U. St.; *C. arietis* and *signifera*, from Mexico, are new.
 „ Conops. (l. c.)
 Monographical Essai. *Conops genualis*, *bulbirostris*, and *castanoptera*, n. sp. from the U. States.
 „ Neue Diptern (l. c. Zweiter Beitrag. Berlin, 1854).
Pyrgota millepunctata, n. sp. from North America (= *P. valida* Harris).
 „ Bombylius. (l. c. Dritter Beitrag. Berlin, 1855.)
 Monograph of the genus, containing important synonymical remarks upon several American species; no new ones described.
 „ Dipterologische Notizen. Neue Americanische Dolichopoden. — In the Wiener Entomologische Monatsschrift, vol. i, p. 37. Vienna, 1857.

Lytroneurus caeruleus from Mexico, and *Plagioneurus univittatus* from Cuba, new genera and species.

Loew, Dr. H. — Excursion nach dem Neusiedler See. — In the Neue Beitr. etc. Vierter Beitrag, 1856.

On p. 18 several european species, also occurring in N. A. are mentioned, but a part of these statements is based on erroneous data about the locality. *Helophilus pendulus*, *versicolor*, *floreus*, and *Chrysotoxum bicinctum* have never, as yet, been found in N. America.

„ Ueber die Fliegengattungen *Microdon* und *Chrysotoxum*. — In the Verh. Zool. Bot. Ver. 1856.

Mentions, on p. 614, the occurrence of *Chrysotoxum bicinctum* Lin. in N. America (see the remark to the previous title).

„ Zur Kenntniss der europ. Tabanus-Arten. — In the Verh. d. Zool. Bot. Gesellsch. Wien 1858, p. 573—612.

N. sp. *Tabanus septentrionalis*; Labrador.

„ Ueber einige neue Fliegengattungen. — In the Berl. Entom. Zeitschr. 1858, vol. II, p. 101—122, with a plate.

Plecia longipes n. sp., from New Orleans.

„ Ueber die europ. Helomyzidae und die in Schlesien vorkommenden Arten derselben. — In the Schles. Zeitschr. f. Entom. 1859.

Quoted for the full descriptions of some european species, which also occur in North-America.

„ Die N.-Americanischen Arten d. Gattungen *Tetanocera* und *Sepedon*. — In the Wiener Entom. Monatschr. III, p. 289—300; 1859.

The species here described were later embodied in the paper on Sciomyzidae in the Monographs etc. Vol. I.

„ Diptera americana ab Osten-Sackenio collecta, decas prima. — In the Wiener Entom. Monatschr. IV, p. 79—84; 1860.

Ten new species from the United States; the descriptions were all reproduced in the authors later publications, with the exception of two: *Clinocera maculata* and *C. conjuncta*.

„ Diptera aliquot in insula Cuba collecta. — In the Wiener Entom. Mon. V, p. 33—43; 1861.

Twenty new species.

„ Die Nord-Amerikanischen Dolichopoden. — In the Neue dipterol. Beiträge, fascicle 8th. 1861.

This paper is superseded by the later Monograph of the N. A. Dolichopodidae in the Monographs, etc. Vol. II.

„ Die americanischen Ulidina. — In the Berl. Entom. Zeitschr. XI, 1867, p. 283—326, with one plate.

Several new N. A. Genera and species. They are all contained in the third volume of the Monographs of the N. A. Diptera.

„ Monographs of the Diptera of North-America, Vol. I—III, with eleven plates. Washington, Smithsonian Institution, 1862—1872.

Vol. I, 1862. — General introduction, Trypetidae, Sciomyzidae, Ephydrinidae and Cecidomyiidae the latter by C. R. Osten-Sacken) [Smithsonian Miscell. Collections, Volume VI].

Vol. II, 1864. — Dolichopodidae [Smiths. Misc. Coll. Vol. VI].
 Vol. III, 1872. — Ortalidae and additions to Trypetidae [Smiths. Miscell. Coll. Vol. XI] *, (For the 4th Volume, see C. R. Osten-Sacken.)

LOEW, Dr. H. — *Diptera Americae Septentrionalis indigena*. -- In the Berliner Entomol. Zeitschr. Century I, 1861; II, 1862; III and IV, in 1863; V in 1864; VI in 1865; VII in 1866; VIII and IX in 1869; X in 1872. — Also published separately, in two volumes. In the present Catalogue, this publication is quoted thus: *Loew, Centuriae*.

" On the diptera of the Amber Fauna. — A lecture, delivered at the meeting of the German association of naturalists and physicians in Königsberg, translated from the German by C. R. Osten-Sacken, and published in the Amer. Journ. of Science and Arts, Vol. XXXVII, May 1864. — The translation contains, on p. 317, in a note, a list of species of diptera which are common to Europe and to North-America; (this note does not exist in the original German edition of the lecture).

" Bemerkungen über die von Herrn v. d. Wulp in der Zeitschrift der niederländischen Entomol. Gesellschaft für 1867 publicirten N. A. Dipteren. — In the Zeitschr. f. die gesammten Naturw. 1870, Bd. XXXVI, p. 113—120.

Remarks about the synonymy and the systematic location of the species in Mr. v. d. Wulp's paper.

" Ueber die Arten d. Gattung Sphyracephala Say. — In the Zeitschr. f. die Gesammten Naturwissenschaften 1873, Bd. XLII, p. 101.

Remarks on *S. brevicornis* Say; *S. subbifasciata* Fitch declared its synonym.

" Neue nordamerikanische Dasypogonina. — In the Berl. Entomol. Zeitschr. 1874, Vol. XVIII, p. 353—377. —

Fourteen new species.

" Neue nordamerikanische Diptera. — In the Berl. Entom. Zeitschr. 1874, p. 378—384.

Six new species.

" Beschreibungen neuer amerikanischen Dipteren. — In the Zeitschr. f. Gesammte Naturw. 1876; Bd. XLVIII, p. 317—340.

Seventeen new species from North-America.

" Revision der Blepharoceridae. — In the Schles. Zeitschr. f. Entomologie, Neue Folge, Heft VI; Breslau 1877. —

* The octavo publications of the Smithsonian Institution are issued in two forms: separately, or collected in a series of volumes under the general heading of: Smithsonian Miscellaneous Collections.

Most of the public libraries in North-America and in Europe possess this series, which is recorded *as such* in their Catalogue. But the separate works which it contains, are, in most cases, *not* recorded in the Catalogues, unless they have been received separately. Persons who are not aware of this circumstance have often searched Catalogues in vain for Dr. Loew's or my publications, while they would have found them under the head of the Smithsonian Miscellaneous Collections.

The description of *Bibiocephala grandis* O. S. is reproduced here, in german translation.

LOEW, Dr. H. — Neue nordamerikanische Ephydrinen. — In the Zeitschrift für die Gesammten Naturwissenschaften, Halle 1878, March — April, p. 192—203.

Fourteen new species.

MACQUART, J. — Histoire naturelle des Diptères. — Paris 1834 - 35; 2 vols, with plates. — Forms a part of the Suites à Buffon, published by Roret.

„ Diptères Exotiques nouveaux ou peu connus. — Two volumes in five parts, and with five Supplements; numerous plates. Paris 1838—1855. — Published originally in the Mémoires de la Société des Sciences et des Arts de Lille; Vol. I, 1838; Vol II, part 1, 1840; part 2, 1841; part 3, 1842; Supplement 1, 1844; Suppl. 2, 1846; Suppl. 3, 1847; Suppl. 4, 1849; Suppl. 5, 1855. (The volumes of the separate edition bear somewhat later dates.)

„ Notice sur une nouvelle espèce d'Aricie. — In the Ann. Soc. Entom. de France 1853, p. 675, Tab. XX, No. 2.

Aricia pici, n. sp. San Domingo.

„ Notice sur un nouveau genre de la famille des Pupipares, tribu des Phthiromydes, sous le nom de Megistopoda. — In the Ann. Soc. Entom. de France 1852, p. 331—333, Tab. IV, No. 4.

Megistopoda Pilatci, n. sp. Mexico, Cuba.

MEADE, R. H. — Notes on the Anthomyiidae of North-America.

(In the Entomologists Monthly Magazine, London, April 1878.)

No new species; interesting comparison of the european and North-American *Anthomyiæ*; list of european species occurring in North-America.

MEIGEN, F. W. — Systematische Beschreibung der bekannten europäischen zweiflügeligen Insecten. 7 vols. Aachen and Hamm, 1818 - 1838.

Although this work contains only European species, many of them are common to both continents.

MORRIS, Miss. — In the Proceedings of the Academy of Natural Sciences of Philadelphia, vol. iv, p. 194 (1849), some remarks have been published by her on the habits of *Cecidomyia culmicola*, n. sp.

NEWMAN, Edw. — Entomological Notes. (In the Entomological Magazine, V, p. 373, 1838.)

Dimeraspis podagra, n. sp. (*Microdon globosus* Fab.)

OLIVIER, G. A. — A portion of the entomological volumes of the Encyclopédie Méthodique is by him. In Vol. VIII (1811), under the titles: *Odontomyia*, *Ocyptera*, *Ornithomyia*. I found descriptions of several new north-american species, which had been overlooked by previous authors.

OSTEN-SACKEN, C. R. — Catalogue of the described diptera of North-America. Washington, Smithsonian Institution, January 1858 [Smithsonian Miscell. Collections, Vol. III].

OSTEN-SACKEN, C. R. — Appendix to the Smithsonian Catalogue of the described diptera of North-America. October 1859; three pages.

- ” New genera and species of north-american Tipulidae with short palpi, with an attempt at a new classification of the tribe: With two plates. — In the Proc. Acad. Nat. Sc. Philad. 1859, p. 197—256.

This paper, as well as the two following, have been entirely superseded by the Monograph of the Tipulidae in the 4th Volume of the Monographs of N. A. Diptera.

- ” Appendix to the paper, entitled „New genera and species etc.“. — In the Proc. Ac. Nat. Sc. Philad. 1860, p. 15.
- ” Description of nine new North-American Limnobiaceae. — In the Proc. Acad. Nat. Sc. Phil. 1861, p. 287—292.
- ” On the North-American Cecidomyiidae. — In the Monogr. N. A. Diptera, Vol. I, p. 173—205. Washington, April 1862; with a plate and several woodcuts.

Four new species.

- ” Characters of the larvae of Mycetophilidae. — In the Proc. Ent. Soc. Phil. I, 1862, p. 151—172, with a plate.

Sciara toxoneura n. sp. (on p. 165).

- ” Lasioptera, reared from the gall of a goldenrod. — In the Proc. Entom. Soc. Phil. I, 1863, p. 363—370; also II, p. 77.

Lasioptera solidaginis, n. sp.

- ” Description of several new North-American Ctenophorae. — In the Proc. Entom. Soc. Philad. III, 1864, p. 45—49.

Five new species.

- ” Description of some new genera and species of N. A. Limnobia. — In the Proc. Entom. Soc. Philad. IV, 1865, p. 224—242.

Six new species.

- ” Two new North-American Cecidomyiidae. — In the Proc. Ent. Soc. Philad. VI, 1866, p. 219—220.

- ” Description of a new species of Culicidae. — In the Trans. Am. Entom. Soc. II, 1868, p. 47—48.

Aedes sapphirinus, n. sp.

- ” On the North-American Tipulidae; part first (Tip. brevipalpi; Cyndrotomina and Ptychopterina). — In the Monographs of the N. A. Diptera, Volume IV, Washington, Smithsonian Institution, January 1869, pages 1—XI, and 1—345, with four plates and several woodcuts (Smithsonian Miscellaneous Collections, Volume VIII).*)

Additions and corrections to this volume, will be found at the end of Monographs etc. Vol. III, published in December 1873.

- ” Biological notes on Diptera; article first: Galls on Solidago. In the Trans. Am. Entom. Soc. Vol. II, p. 299—303; 1869.

N. sp. *Asphondylia monacha*; *Cecidomyia anthophila*.

*) See the foot-note on page 10.

- OESTEN-SACKEN, C. R. — Biol. notes on Diptera, article second: 1. A new american *Asphondylia*; 2. On some undescribed galls of *Cecidomyia*. — In the Trans. Am. Entom. Soc. Vol. III, p. 51—54; 1870—71.
- " Biol. notes etc., article third: 1. *Cecidomyia*, living in pine-resin (*Diplosis resinicola* n. sp.). 2. A gall of *Cecidomyia* on a wild cherry-tree. 3. Additions and corrections. — In the Trans. Am. Entom. Soc. Vol. III, p. 345—347; 1870—71.
- " A list of the Leptidae, Midaidae and Dasypogonina of North-America. — In the Bulletin Buffalo Soc. Nat. Sc. October 1874. Three new species of Midas.
- Additions and corrections to this list are given in the same Bulletin, November 1875, p. 71. (This List is of course entirely superseded by the present publication).
- " Prodrome of a Monograph of the North-American Tabanidae. — In the Memoirs of the Boston Society of Natural History, Vol. II, 1875—78.
- Part I. The genera *Pangonia*, *Chrysops*, *Silvius*, *Haematopota*, *Diabasis* (l. c. p. 365—397).
- Part II. The genus *Tabanus*, with an Appendix and Index (l. c. p. 421—479).
- Supplement (l. c. p. 555—560).
- " Report on the Diptera, collected by Lieut. W. L. Carpenter in Colorado during the summer 1873. — In Dr. Hayden's U. S. Geological and Geographical Survey of Colorado for 1873. — Washington, 1874 (p. 561—566).
- Bibiocephala grandis*, n. gen. and sp.
- " Three new galls of *Cecidomyia*. — In the Canadian Entomologist, November 1875.
- Cecid. verrucicola* (on *Tilia americana*); *Cecid. urticae* (on *Urtica*); *Asphondylia recondita* (on *Aster patens*), *nov. sp.*
- " Note on some Diptera from the Island Guadalupe, Pacific Ocean, collected by Mr. Palmer. — In the Proceed. Boston Soc. of Natural History, October 1875. — No new species.
- " On the North-American species of the genus *Syrphus* (in the narrowest sense). — In Proc. Boston Soc. Nat. Hist. October 1875, p. 135—153.
- N. sp. *Syrphus analopis*, *contumax*, *torvus* (= *topiarius* Zett.), *rectus* (= *ribesii* Lin.)
- " A list of North-American Syrphidae. — In the Bulletin Buffalo Soc. Nat. Sc. November 1875, p. 38—71. —
- In the Appendix, descriptions of *nine* new species. Additions and corrections to this list are given in the same Bulletin, May 1876, p. 130. (This List is entirely superseded by the present Catalogue; even the notes, added to it, are reproduced here).
- " Report on the collection of Diptera made in portions of Colorado and Arizona during the year 1873. — In Lieut. Geo. M. Wheeler's Report upon the Explorations and Surveys West of the one hundredth Meridian; Vol. V, Zoology, p. 804—807. — Washington 1875.
- N. sp. *Lasia Klattii*.

- OSTEN SACKEN, C. R. — *Blepharoptera defessa*, n. sp. — In Mr. Packard's article: On a new cave-fauna in Utah, in the Bulletin of the U. S. Geol. and Geogr. Survey of the Territories, Vol. III, No. 1, p. 168; 1877. (The very bad figure of this *Helomyza* appended to this description, was published without my knowledge.)
- „ Report on the Diptera collected by Dr. E. Bessels during the Arctic expedition of the *Polaris* in 1872. — In the Proceed. Boston Soc. N. Hist. December 6, 1876.
N. sp. *Tipula Besselsi*.
- „ Western Diptera, descriptions of new genera and species of Diptera from the region West of the Mississippi, and especially from California. — In the Bulletin of the U. S. Geological and Geographical Survey of the Territories, Vol. III, No. 2, April 30, 1877, page 189—354. (A table of contents was printed separately by the author and distributed with his copies.)
One hundred and thirty six new species, and several new genera, principally from California; some few from the Atlantic States.
- PALISOT DE BEAUVOIS, A. M. F. J. — *Insectes recueillis en Afrique et en Amérique*, etc. in fol. Paris, 1805—21. With plates.
Several *Tabani*, one *Chrysops*, and one *Syrphideous* insect from N. America, are described and figured.
- PALLAS. — *Reisen durch verschiedene Provinzen des Russischen Reichs*. 1st vol. St. Petersburg, 1771.
On page 475 a *Culex caspius* is described, which Curtis (Ins. of Capt. Ross's voy.) identifies with an American species (according to Schiödte Curtis's species is *C. nigripes* Zett.).
- PACKARD, A. S. — *Guide to the study of insects*, etc. 8^{vo}, with 15 plates and 372 woodcuts. Salem, Mass. First edit. 1868—69; third 1872.
N. sp. *Chironomus oceanicus* Pack., *Ephydra halophila* Pack., *Hippobosca bubonis* Pack. The first two, are described in the following paper; the third is *Olfersia americana* Leach.
- „ On insects inhabiting salt water. — In the Proc. Essex Instit. Vol. VI, p. 41, March 1869.
Ephydra halophila n. sp. and *Chironomus halophilus*, n. sp.
- „ On insects inhabiting salt water, No. 2. — In the Amer. Journ. of Arts and Sc. 3d. series, Vol. I, p. 100, 1872.
Specific names are given to several larvae, the imago of which are undescribed (*Ephydra gracilis, californica*).
- „ In the Report upon the invertebrate animals of Vineyard Sound etc. Washington, D. C. 1874, Mr. Packard mentions several larvae of Diptera, obtained in dredging salt and brackish waters.
Chironomus halophilus, n. sp., larva, imago unknown; *Chiron. oceanicus* Packard; *Culex*, larva in brackish waters (no description); *Muscidae* (undetermined larvae described); *Eristalis* (larva among algae) *Ephydra* (undetermined larva, no description).

- PERTY, Maximilian. — Delectus animalium articulatum quae in itinere per Brasiliam annis 1817—20 etc. collegerunt Dr. Spix et Dr. Martius. Monachii, 1830—34. 4°, with 40 plates.
 Several species, described here, occur in Cuba and Mexico.
- POEY, Felipe. — Memorias sobre la Historia Natural de la Isla de Cuba; Tomo Iº, Habana 1851—54.
Oecacta furcans, nov. gen. et sp.
- REICHE, L. — Description de cinq espèces nouvelles d'insectes, provenant de l'expédition aux mers arctiques. — In the Annales de la Soc. Entom. de France, Série 3e, 1857, Bulletin, p. IX.
Anthomyia impudica, n. sp. (is a Cordylura).
- RILEY, C. V. (State Entomologist of Missouri and Editor of the American Entomologist.) — First annual Report on the noxious, beneficial and other insects of the State of Missouri etc. Jefferson City, 1869.
 N. sp. *Lydella doryphorae*, *Anthomyia Zeas*, *Pipiza radicum*.
 „ Second Report etc. 1870.
 N. sp. *Asilus missuriensis*, *Exorista flavicauda*.
 „ Third Report etc. 1871.
 N. sp. *Masicera archippivora*.
 „ Fourth Report etc. 1872.
 N. sp. *Exorista cecropiae*.
 „ Fifth Report etc. 1873.
 Galls of *Cecidomyiae* on grape-vine, figured.
 „ Descriptions and natural history of two insects which brave the dangers of *Sarracenia variolaris*. — In the Transact. of the Acad. Nat. Sc. of St. Louis, Vol. III, p. 235—240; 1875.
Sarcophaga sarraceniae, n. sp., larva, pupa, imago described and figured.
 „ Seventh Report etc. 1875.
 Biological observations on *Tachina anonyma* and a species of *Sarcophaga*.
 „ Articles in the American Entomologist.
- RONDANI, Camillo. — Diptera exotica, revisa et annotata, novis nonnullis descriptis. — Modena 1863 (appeared originally in Archivio Canestrini, III).
 N. sp. *Scatina estotilandica*, Labrador.
 „ Osservazioni sopra alcune specie di esapodi ditteri del museo torinese. — In the Nuovi Annali di Bologna, Ser. 3, Vol. II; Sept. — Oct. 1850, p. 165—197, with plates.
Tabanus cheilopterus, n. sp. from Carolina.
- SAINT-FARGEAU et SERVILE, authors of a part of the Vol. X of the Encyclopédie Méthodique; north american diptera are mentioned; no new ones.
- SAY, Th. — Description of Dipterous Insects of the United States. — In the Journal of the Academy of Natural Sciences in Philadelphia, vol. iii, p. 9—54 and 73—104. 1823.

- SAY, Th. — Description of North-American Dipterous Insects. — 1. c. vol. vi, p. 149—178 and 183—188. 1829—30.
- ” Keating’s Narrative of an Expedition to the Source of St. Peter’s River, under the command of S. H. Long. 2 vols. Philadelphia, 1824. — Insects described by Say in the Appendix to the 2d vol.; diptera from p. 357 to p. 378.
- ” New Species of N. American Insects, found by Joseph Barabino in Louisiana. Indiana, 1832.
Sciara dimidiata, *Dilophus stygius*, n. sp.
- ” American Entomology. 3 vols. With plates. Philadelphia, 1824, 25, 28.
 Nineteen diptera are described and figured in this work, seven of which for the first time.
- ” *Diopsis brevicornis*, n. sp. — In the Journal of the Academy of Natural Sciences of Philadelphia, vol. i. p. 23.
- ” Some account of the insect known by the name of Hessian Fly, etc. — In the Journ. A. N. Sci., Phil., vol. i, 1817.
Cecidomyia destructor, Say was described for the first time in this paper.
- ” The complete writings of Thomas Say on the entomology of North-America, with a memoir of the author by George Ord (edited by John L. Leconte). New-York 1859; Two volumes 8vo.
 In the present volume, the pagination of Say’s original papers, as well as that of this new edition of them, are quoted. Some notes are added on the Diptera, by C. R. Osten Sacken.
- SHIMER, Henry M. D. — Description of a new species of *Cecidomyia*. — In the Trans. Amer. Entom. Society, I, p. 281.
Cecidomyia aceris, n. sp.
- ” A summers study of Hickory-galls, with descriptions of supposed new insects, bred from them. — In the Trans. Amer. Entom. Soc. II, p. 386, 1869.
 On p. 395 there is an imperfect description of an inquiline *Cecidomyia*, *C. cossae*, n. sp.
- ” Additional notes on the striped squash-beetle (*Diabrotica vittata* Fab.). — In the American Naturalist, V, p. 217.
Tachina (*Melanosphora*) *diabroticae*, n. sp. (with figure).
- SCHINER, Dr. J. R. — Neue oder wenig bekannte Asiliden des K. zoologischen Hofcabinets in Wien. — In the Verh. Zool. Bot. Gesellsch. XVII, p. 355, 1867.
Five new species from North-America and useful remarks on species, described by other authors.
- ” Die Wiedemann’schen Asiliden, interpretirt und in die seither errichteten neuen Gattungen eingereiht. — In the Verh. Zool. Bot. Gesellsch. XVI, p. 649; 1866. —
 Although this paper does not contain any new north-american species, it is important for the classification, and as such, has been quoted; (however, compare about it my Preface).

SCHINER, Dr. J. R. — Reise der Oesterr. Fregatte Novara um die Erde in den Jahren 1857—59; Zoologischer Theil; Diptera; Wien 1868. 1 vol. in 4^o, with 4 plates.

Many north-american species, which also occur in South-America, are mentioned in this volume; also many genera are established, which occur in North-America.

SCHÜDTE, J. G. — Review of the Arthropods of Greenland. Published originally in danish, in Rink's work on Greenland. A german translation, by Mr. Etzel, appeared in the Berl. Entomol. Zeitschrift 1859, p. 134—157. The diptera contain a list of the species hitherto recorded from that country, with a few remarks, but no new species.

STAEGER, C. — Groenland's Antliater. — In Kröjer's Nat. Tidsskrift, new Series, Vol. I, p. 346—369; 1845.

Fifty five diptera are mentioned, *eight* of which, are new.

SWEDERUS, Samuel. Et nytt Genus och femtio nya species af insecter. — In the Vetensk. Acad. Nya Handl. 1787, p. 181 and 276.

Two north-american species: *Musca tomentosa*, which is probably *Brachypalpus verbosus*, and *Musca* (*Syrphus monoculus*), I cannot make out the synonymy of the latter.

THUNBERG. — In Act. Soc. Gothoburg. 1819. Pars III, 7, Tab. 7, Fig 2. — So quoted by Wiedemann, Auss. Zw. I, 110, 4, who reprints Thunberg's description of *Pantophthalmus tabaninus* from the West-Indies.

THOMSON, C. G. — Described the diptera in the volume: Kongliga Svenska fregatten Eugénies Resa etc. Zoologi. Insecta. Diptera, p. 443—614; Tab. IX. 1868.*)

Forty nine new species from California and Panama.

VAN DER WULF, F. M. — Eenige noord-americaansche diptera. — In the Tijdschrift voor Entomol. Nederl. Entomol. Vereeniging, 1867, 2e Ser., II, p. 125—164, Tab. III—V.

Thirty new north-american diptera are described and many of them figured.

„ Nog iets over noord-am ricaansche Diptera. — In the same serial, Vol. IV, p. 80—86, 1869.

Five new species from North-America.

„ Opmerkingen omtrent uitlandsche Asiliden. — In the same serial, Vol. V, 1870.

Stenopogon ochraceus, n. sp.

WALKER, F. — Description of diptera collected by Capt. King in the survey of the Straits of Magellan. Trans. Linn. Soc. London, 1837, T. XVII, p. 331—359.

*) Brauer, Bericht über die wissenschaftlichen Leistungen etc. für 1868, contends, that although the title-page bears the year 1868, the volume was actually issued only in 1869; this, in order to secure the priority of the volumes of the Novara Expedition, which appeared in 1868.

Eristalis lateralis n. sp. from Chili, afterwards obtained from Mexico and Jamaica (Walker, List, etc. III, 622).

WALKER, F. — List of the Specimens of Dipterous Insects in the Collection of the British Museum. Four Parts and three Supplements. London 1848—55.

Numerous new species from N. America. The supplements contain a synopsis of the described species of *Tabanidae*, *Asilidae*, *Acroceridae*, and *Stratiomyidae*, from all parts of the world.

- ” Insecta Saundersiana, or characters of undescribed Insects in the collection of W. W. Saunders, Esq. *Diptera*. Five parts, with eight plates by Westwood; London 1850—56. (Part. I in 1850, Part. II in 1851, Part. III and IV in 1852, Part V in 1856.)

Numerous new north-american species.

- ” Characters of undescribed diptera in the collection of Wm. Saunders. In the Trans. Entom. Soc. N. Ser. IV. 1857, p. 119—158 and 190—235; V, p. 268—334.

About *one hundred* new species from North-America, mostly from Mexico.

- ” On some insects of Nova Scotia and Canada. — In the Canadian Entomologist, III, p. 141, October 1871.

A short list of diptera, occurring in Nova Scotia; no new species are described. The species marked with a star also occur in Europe; but some of these data are doubtful. *Pombylius major* Lin. is probably Bombyl. fraterellus Wied.; *Helophilus pendulus* Lin. may be *H. similis* Macq., or some allied species.

- ” In the Appendix to “The Naturalist in Vancouver Island and British Columbia”, by J. K. Lord, London 1866, 2 Vol., Mr. Walker describes four new species from those regions (l. c. Vol. II, p. 337—339).

Culex pinguis, *Laphria columbica*, *Cuterebra approximata*, *Eurygaster septentrionalis*.

WALSH, Benj. D., M. A. — First annual report on the Noxious Insects of the State of Illinois. — In the Appendix to the Transactions of the Illinois State Horticultural Society; Chicago 1868.

Trypeta pomonella n. sp.

- ” Insects injurious to vegetation in Illinois; Rock-Island 1861 (Pamphlet).

Exorista (Senometopia) *militaris*, n. sp.

- ” On certain remarkable or exceptional larvae, coleopterous, lepidopterous and dipterous. — In the Proc. Boston Soc. Nat. Hist. IX, 1864, p. 286—308.

Midas fulvipes, n. sp.

- ” On the insects, coleopterous, hymenopterous and dipterous, inhabiting galls of certain species of willow. — In the Proc. Entom. Soc. Philad. Vol. III, p. 543—644 (1864); Vol. VI, p. 223—288 (1866).

Numerous *Cecidomyiæ*, n. sp. and their galls.

- ” Larvae in the human body. — In the American Entomologist II, p. 137.

- Contains the descriptions of three larvae of *Homalomyia*, designated as *H. Wilsoni*, *Leydii* and *prunicora*. Perfect insect not described.
- WALSH, Benj. D. — Mr. Couper's thorn-leaf-gall. In the Canadian Entomologist, I, p. 79. — Short article, referring to the gall of a Cecidomyia, *C. erataegi* Bedeguar Walsh.
- WESTWOOD, J. O. — On *Diopsis*, a genus of dipterous insects etc. — In the Trans. Linn. Soc. Vol. XVII, p. 283, 1833—34.
Diopsis (Sphyracephala) *brevicornis* Say; description and figure reproduced from Say.
- „ Insectorum novorum exoticorum ex ordine dipterorum descriptiones. — In the London and Edinburgh Philosophical Magazine, 1835.
Bittacomorpha, nov. gen.; *Lepidophora aegeriiformis*, Gray; *Paigonia macroglossa*; *Gynoplistia annulata*; all north-american.
- „ Insectorum nonnullorum novorum (ex ordine dipterorum) descriptiones. — In the Annales de la Société Entomologique de France, 1835, p. 681—685.
Limnobia rhyndchus canadensis, nov. gen. et. sp.
- „ Description of some new exotic *Aeroceridae*. — In the Transactions of the Entomological Society, vol V, p. 91. 1848.
 Six new species from N. America.
- „ Synopsis of the dipterous family *Milasiidae*, with descriptions of numerous species. — In Westwood's Arcana Entomologica, vol. I. Plates XIII and XIV. 1841—43.
 Five new species from N. America.
- „ Generis dipterorum monographia *Systropi*. — In Guérin's Magazin de Zoologie 1842.
Systropus foveoides, n. sp. from Mexico.
- „ Diptera nonnulla exotica descripta. — In the Transactions of the Entomological Society, vol. V, p. 231. 1850.
Ceria daphnacus, Walk.; from Jamaica, described and figured.
- „ — Observations on the destructive species of dipterous insects known in Africa under the names of the Tsetse, Zimb and Tsalt-salya. — In the Proceedings of the Zool. Soc. of London, 1850, p. 259—270; with a plate.
Stylomyia confusa Westwood, without locality, is *Stylogaster stylatus* Fabr. from North-America.
- „ Notae dipterologicae. Monograph of the genus *Systropus*, with notes on the economy of a new species of that genus. — In the Trans. Entom. Soc. London, 1876.
Systropus foveoides Westw. from Mexico; description reproduced from Magaz. de Zool. 1842.
- „ Notae dipterologicae. Description of new genera and species of the family *Aeroceridae*. — In the Trans. Entom. Soc. London 1876.
Pialoidea nov. gen. for *Cyrtus magnus* from Georgia.

- WIEDEMANN, C. R. W. — Aussereuropäische Zweiflügelige Insecten. 2 vols. Hamm 1828—30. With plates.
- ” Diptera exotica. Kiliae 1821.
- ” Analecta entomologica. Kiliae 1824.
- ” Achias, dipterorum genus a Fabricio conditum. Kiliae 1830.
Sphyracephala (Achias) brevicornis Say; described and figured.
- ” Monographia generis *Midarum*. (In the Nova acta Academiae Naturae Curiosorum, vol XV. Bonn 1831. 4to. With three plates.)
 Four new species from N. America.
- ZETTERSTEDT, J. W. — Insecta lapponica, descripta. 1 vol. in 4to. Lipsiae 1838—40.
- ” Diptera Scandinaviae disposita et descripta. 14 vols. Lundae 1842—1860.
- Both of these works contain many diptera common to Lapland and the northern parts of the American continent.

The Practical Entomologist,

published by the Entomol. Soc. of Philadelphia. Vol I, 1865—66, Vol. II, 1866—67.

The American Entomologist,

an illustrated Magazine of popular and practical Entomology, edited by Benj. D. Walsh and Ch. V. Riley. St. Louis, Mo., Vol. I, 1868; Vol. II (title changed to Amer. Entom. and Botanist) 1870.

The Canadian Entomologist,

Volume I—VII; 1869—1875. (Voll. I and II published in Toronto; Voll. III—VII in London, Ont.)

The American Naturalist

a monthly magazine of Natural History, published (until 1877) in Salem, Mass.

These periodicals have been quoted in the present volume for the various notices and illustrations of N.-A. Diptera, which they contain.

LIST
OF THE NEW GENERA AND THE NEW SPECIES
PUBLISHED IN THE NOTES TO THIS VOLUME.

- I. New genera: **Crioprora** (Syrphidae);
 Diotrepha (Tipulidae).
- II. New species:
 Diotrepha mirabilis (Tipulidae). — Southern States.
 Cyrtopogon lyratus (Asilidae). — New-York and New-England.
 Porphyrops signifer (Dolichopodidae). — Northern States.
 Borborus renalicius (Borboridae). — Cuba.
 Arthropeas leptis (Coenomyidae). — Northern States.
- III. Changed or modified generic names (the reason for the change
is, in every case, explained in the notes):
 Protoplasta in *Idioplasta*.
 Empheria in *Neoempheria* (Mycetophilidae).
 Glaphyroptera in *Neoglaphyroptera* (Mycetophilidae).
 Aspilota in *Neaspilota* (Trypetidae).
 Eristicus in *Neeristicus* (Asilidae).
 Mochtherus in *Neomochtherus* (Asilidae).
 Itamus in *Neoitamus* (Asilidae).
 Idiotypa in *Neoidiotypa* (Trypetidae).
 Rondania in *Neorondania* (Stratiomyidae).
 Exaireta in *Neocxairctu* (Stratiomyidae).
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EXPLANATIONS

NECESSARY FOR THE USE OF THE CATALOGUE.

A Star (*) before a specific name means that the species is to be found in the collection of the Museum of Comparative Zoology, in Cambridge, Mass. These stars are omitted only in the family Cecidomyiidae.

An interrogation (?) before a specific name means that its position in the genus is doubtful; an interrogation before a synonym, means that the synonymy is uncertain.

An exclamation after a synonymy, means that I have seen the type of the description. I have used this sign whenever I deemed it necessary to inform the reader of that fact; *but the absence of that sign does not necessarily mean that I have not seen the type.*

Synonymies. The authority for each synonymy is given after it, in brackets; where no authority is mentioned, my own is assumed.

Genera. Species which I do not know, may sometimes not be placed in the right genera; this applies especially to the species from Mexico and the West-Indies.

Loew, in litt. All the data, which I obtained from Mr. Loew, either by letter, or in looking over his North American collection (during my visit in Guben, in September 1877), are quoted in that way.

M. C. Z. Museum of Comparative Zoölogy in Cambridge, Mass. —

Localities. It will be noticed that, in some cases, the localities marked in the catalogue, differ from those which are found in Dr. Loew's Centuries of North-American Diptera. These discrepancies are not errors, or omissions, *but corrections.*

In this Catalogue (as well as in my earlier list), I have not included those species of earlier authors, which were marked simply „America“.

New-York is always meant for the State of that name, not for the city.

CATALOGUE
OF NORTH AMERICAN DIPTERA.



I. DIPTERA ORTHORHAPHA.

FAMILY CECIDOMYIDAE.

Cecidomyia.

Meigen, Illiger's Magaz. 1803. (1)

aceris Shimer, Trans. Amer. Entom. Soc. I, 281. — Illinois; the larva lives on the surface of leaves of *Acer dasycarpum*.

albovittata Walsh, Proc. Entom. Soc. Phil. III, 620; VI, 227. — Illinois; inquiline on willow-galls.

Amyotii Fitch, Reports Vol. III, 31 (♀). — New-York.

anthophila O. Sacken, Trans. Amer. Entom. Soc. II, 302. — New-York; on *Solidago*.

chrysopsidis Loew, Monogr. etc. I, 203; Tab. I, f. 1 (gall.) — Washington, D. C. On *Chrysopsis mariana*.

cornuta Walsh, Proc. Ent. Soc. Phil. III, 625. — On *Salix*.

cossae Shimer, Trans. Amer. Ent. Soc. II, 395. — Illinois; on *Carya*.

culmicola Morris (Miss), Proc. Acad. Nat. Sc. Phil. IV, 194 (1849); No description given; only remarks upon habits etc. Harris, Ins. Injur. Veget. 582. — Pennsylvania.

cupressi-ananassa Riley, Amer. Entom. II, 244 and 273; fig. 153 (gall). — Tennessee, on *Taxodium distichum*.

destructor Say, Journ. Acad. Phil. I, 45, Tab. III, f. 1—3; Compl. Wr. I, p. 4 (no figures); Wiedemann, Auss. Zw. I, 21, 1. Other references to the numerous papers concerning this insect may be found in Harris's Ins. Injur. to vegetation, and in Dr. A. Fitch's articles „the Hessian fly“ in the Amer. Journ. of Agric. and Science (1846), reprinted, with some additions, in the Trans. N. Y. State Agric. Soc. Vol. VI, 1846, p. 316—376; a shorter article, with some new facts, in Dr. Fitch's Reports, Vol. III, p. 133—144, Tab. III, f. 2—3, and Appendix, p. 203. According to Loew, in Silliman's Journal, N. Ser. XXXVII, p. 317, this species is the same as the european *Cecid. funesta* Metchulski = *Cecid. scedina* Loew. For the literature on this subject, see also: Bergenstamm und Loew, Synopsis Cecidomyidarum, 39 (in the Verh. Zool. Bot. Ges. 1876).

gleditchiae O. Sacken, Proc. Ent. Soc. Phil. VI, 219. — Newport, R. J., on *Gleditchia triacanthos*.

- grossulariae** Fitch, Reports, Vol. I, 176; Vol. II, No. 150. — On the gooseberry (*Ribes*).⁽²⁾
- hirtipes** O Sacken, Monogr. etc. I, 195. — Distr. Columbia, on *Solidago*.
- orbitalis** Walsh, Proc. Ent. Soc. Phil. III, 623; VI, 227. — Inquilinous on willow-galls.
- ornata** Say, Long's Exped. App. 357; Compl. Wr. I, 242; Wiedemann, Auss. Zw. I, 22, 2. — Pennsylvania.
- pseudoacaciae** Fitch, Rep. Vol. II, No. 331. — On *Robinia pseudoacacia*.
- salicis-batatas** Walsh, Proc. Ent. Soc. Phil. III, 601; VI, 225. — On *Salix cordata*, *discolor*, *humilis*.⁽³⁾
- salicis-brassicoides** Walsh, l. c. III, 577; American. Entomol. 105, fig. 84; Packard's Guide 377, f. 282. — On *Salix longifolia*.
- salicis-cornu** Walsh, l. c. III, 590; VI, 224. — On *Salix humilis*.
- salicis-guaphaloides** Walsh, l. c. III, 583; VI, 223. — On *Salix candida*, *discolor*, *humilis*.⁽⁴⁾
- salicis-rhodioides** Walsh, l. c. III, 586; VI, 224. — On *Salix humilis*.⁽⁴⁾
- salicis-strobiloides** Walsh, l. c. III, 580. — On *Salix cordata*.^(4 and 5) Compare also O. Sacken, Monogr. I, 203, where the gall is described for the first time; also Amer. Entom. I, 105, f. 82; Packard's Guide, 377, fig. 280—281.
- salicis-strobiliseus** Walsh, l. c. III, 582; VI, 223. — On *Salix discolor* and *rostrata*.⁽⁴⁾
- serrulatae** O. Sacken, Monogr. etc. I, 198. — Distr. Columbia, on *Alnus serrulata*.
- siliqua** Walsh, Proc. Entom. Soc. Philad. III, 591; VI, 224. — On *Salix humilis*, *cordata*? *discolor*? According to the author, perhaps the same as *Cec. salicis* Fitch.
- solidaginis** Loew, Monogr. etc. I, 194, Tab. I, f. 8. — On *Solidago*.
- spongivora** Walker, List. etc. I, 30. — Huds. Bay Territ.

Diplosis.

Loew, Dipterol. Beitr. IV, 20; 1850.

- atrocularis** Walsh, Proc. Ent. Soc. Phil. III, 626; VI, 227. — Rock-Island, Ill., inquilinous on willow-galls.
- atricornis** Walsh, l. c. III, 628. — Same habits.
- annulipes** Walsh, l. c. III, 629. — Same habits.
- caliptera** Fitch, Essay upon the wheat-fly etc. (*first edition* in the Amer. Quart. Journ. of Agric. and Science, 1845, Vol. II, No. 2, Tab. V, f. 2; *second edition*, Trans. N. Y. State Agricultural Society 1846, Vol. V; *Cecid. cerealis* Fitch is separated from *C. caliptera* in the second edition only). See also Fitch, Reports etc. Vol. III, 90, Tab. II, f. 18 (*Cecidomyia*). — New York, occurs with *Dipl. tritici*.
- caryae** O. Sacken, Monographs etc. I, 191. — Distr. Columbia; forms galls on the leaves of the hickory.
- decemmaculata** Walsh, Proc. Entom. Soc. Phil III, 631. — Inquilinous on willow-galls.

- graminis** Fitch, Reports, Vol. III, 90, Tab. II, f. 2, 5 (*Cecidomyia*). — Occurs on wheat, with *D. caliptera*. Synon. *Cecid. cerealis* Fitch, Essay on the wheat-fly, 2^d edition, in the Trans. N. Y. State Agric. Soc. V, 1847 [change of name by Dr. Fitch].
- helianthi-bulla** Walsh, Proc. Entom. Soc. Phil. VI, 228. — On *Helianthus*.
- inimica** Fitch, Reports, Vol. III, 88 (*Cecidomyia*). Larva in wheat-heads, in company w. *Diplosis tritici* (although the female alone is described, it is probably a *Diplosis*).
- macceus** Loew, Monogr. etc. I, 187, Tab. I, f. 11, 12. — Distr. Columbia; habits unknown.
- resinicola** O. Sacken, Trans. Amer. Ent. Soc. III, 345 (1870—71). — Tarrytown, N. Y.; in the resin of *Pinus inops*. The occurrence of the larvae had already been noticed by Mr. Sanborn, in the Proc. Boston Soc. N. H. XII, 93 (1868—69).
- robiniae** Haldeman, Amer. Journ. Agric. and Sc. VI, 193, 1847 (with figures); reprinted in Proc. Boston Soc. N. H. VI, 401, 1859 (*Cecidomyia*); Harris, Ins. Injurious to Vegetation, 567 (*id.*); Fitch, Reports, Vol. II, No. 332 (*id.*). — On leaves of *Robinia pseudo-acacia*; Atlantic States.
- septemmaculata** Walsh, Proc. Ent. Soc. Phil. III, 630; VI, 228. — Inquilinous in willow-galls.
- tergata** Fitch, Essay on the wheat-fly etc. l. c. f. 3 and 4 (*Cecidomyia*).
- thoracica** Fitch, Essay on the wheat fly etc. l. c. f. 5 and 6 (*Cecidomyia*). (As Dr. Fitch mentions both this and the preceding species as being related to *Dipl. tritici* in size, in the number and form of the joints of the antennae, they must necessarily belong to the genus *Diplosis*).
- tritici** Kirby, Curtis etc. (*Cecidomyia*); Harris, Ins. Injurious to Veget. etc. 592; Fitch, Essay on the wheat-fly etc.; Fitch, Reports, Vol. III, 1—88, Tab. II, f. 1, 4 (*id.*); Amyot, Annales de la Soc. Entom. de France 1855, Bullet. CIV. — Injurious to wheat in Europe and N. America.

Asphondylia.

Loew, Dipterol. Beitr. IV, 20; 1850.

- helianthi-globulus** Walsh (*in litt.*), O. Sacken, Trans. Am. Ent. Soc., II, 301. — Rock-Island, Illin., on *Helianthus*.
- monacha** O. Sacken, Trans. Am. Ent. Soc. II, 300, and III, 347. — New York; on *Solidago*.
- recondita** O. Sacken, Canadian Entomologist, Nov. 1875. — On *Aster patens*, Long Island, N. Y.
- rudbeckiae-conspicua** O. Sacken, Trans. Am. Ent. Soc. III, 51. — Pennsylvania; on *Rudbeckia triloba*.

Lasioptera.

Meigen, System. Besch. I, 88; 1818.

- parva** Walker, List etc. I, 29. — Huds. B. Terr.
- solidaginis** O. Sacken, Proc. Entom. Soc. Phil. I, 370. — Larva probably inquilinous in galls on *Solidago*.

- ventralis** Say, Long's Exped. App. 357; Compl. Wr. I, 242; Wiedemann, Auss. Zw. I, 21, 1. — Pennsylvania.
- vitis** O. Sacken, Monographs etc. I, 201; gall figured by C. V. Riley, 5th Report, 117; also in Amer. Entomologist, I, 247. — District Columbia and elsewhere on *Vitis*.

Cecidomyiæ known by their galls and larvae only.

- agrostis** O. Sacken, Monographs etc. I, 204; originally mentioned in A. Fitch, The Hessian fly, 2d edition, in pamphlet form, p. 38 („imbricated galls on *Agrostis lateriflora*“).
- brachyteroides** O. Sacken, Monographs etc. I, 198. — On *Pinus inops*, producing a swelling at the basis of the leaves.
- carbonifera** O. Sacken, Monogr. etc. I, 195. — On leaves of *Solidago*.
- caryaeicola** O. Sacken, Monogr. etc. I, 192. — On *Carya*; Distr. Columbia. (6).
- citrina** O. Sacken, Trans. Amer. Ent. Soc. III, 53. — On the terminal buds of young shoots of *Tilia americana*; New York.
- crataegi-bedeguar** Walsh, Canad. Ent. I, 79; Proc. Ent. Soc. Phil. VI, 266. — On *Crataegus tomentosa*. (In the same paper Mr. Walsh mentions galls on *Crataegus*, which he calls *crataegi-plica*, *limbus* and *globulus*, without giving any further description.)
- cynipsea** O. Sacken, Monogr. etc. 193. — On *Carya*.
- erubescens** O. Sacken, Monogr. etc. I, 200. — On *Quercus*.
- farinosa** O. Sacken, Monogr. etc. I, 204. — On leaves of the blackberry, *Rubus*.
- glutinosa** O. Sacken, Monogr. etc. I, 193. — On *Carya*.
- holotricha** O. Sacken, Monogr. etc. I, 193. — On *Carya*. (6).
- impatiens** O. Sacken, Monogr. etc. I, 204; Amer. Entomol. II, 63 (figure of gall). — Deforms flowers of *Impatiens*; Distr. Columbia.
- liriodendri** O. Sacken, Monogr. etc. I, 204. — On the leaves of *Liriodendron*.
- majalis** O. Sacken, Monogr. etc. I, 204. — On the leaf-ribs of *Quercus palustris*.
- nodulus** Walsh, Proc. Ent. Soc. Phil. III, 599. — On *Salix longifolia*.
- nucicola** O. Sacken, Trans. Amer. Ent. Soc. III, 53. — In the husks of the nuts of *Carya*; New York.
- niveipila** O. Sacken, Monogr. etc. I, 199. — On Oak-leaves.
- ocellaris** O. Sacken, Monogr. etc. I, 199. — Produces ocellate spots on the leaves of *Acer rubrum*.
- persicoides** O. Sacken, Monogr. etc. I, 193. — On *Carya*. (6).
- poeculum** O. Sacken, Monogr. etc. I, 201. — On *Quercus*. (7).
- pini-inops** O. Sacken, Monogr. etc. I, 196. — Forms a resinous cocoon on the leaves of *Pinus inops*. Distr. Columbia.
- pellex** O. Sacken, Monogr. etc. I, 199. — Galls on leaves of *Fragaria americana*. Distr. Columbia.
- pudibunda** O. Sacken, Monogr. etc. I, 202. — On the leaves of *Carpinus americana*. Distr. Columbia.
- racemicola** O. Sacken, Monogr. I, 196. — On *Solidago*, among the racemes. Distr. Columbia.

- salicifoliae* O. Sacken, Proc. Ent. Soc. Phil. VI, 220. — On *Spiraea salicifolia*. Canada.
salicis-aenigma Walsh, Proc. Ent. Soc. Phil. III. 608; VI, 227.
salicis-coryloides Walsh, l. c. III, 588; VI, 224. (!).
salicis-nodulus Walsh, l. c. III, 599.
salicis-semen Walsh, l. c. III, 607; VI, 226.
salicis-verruca Walsh, l. c. III. 606; VI, 226.
salicis-triticoides Walsh, l. c. III, 598; VI, 225.
salicis-hordoides Walsh, l. c. III, 599.

N.B. All these are willow-galls, produced by Cecidomyiæ; the galls *semen* and *aenigma* Mr. Walsh acknowledges later l. c. VI, 226 to be produced by *Acarus*.

- sanguinolenta* O. Sacken, Monogr. etc. I, 192. — On *Carya*.
serotinae O. Sacken, Trans. Amer. Entom. Soc. III: 346. — On *Cerasus serotina*; New York.
symmetrica O. Sacken, Monogr. etc. I, 200. — On *Quercus*.
tubicola O. Sacken, Monogr. etc. I, 192. — On *Carya*. (!).
tulipiferae O. Sacken, Monogr. etc. I, 202. — On *Liriodendron*.
umbellicola O. Sacken, Trans. Amer. Ent. Soc. III, 52 and 347. Among the umbels of *Sambucus racemosa* in New York and New-Jersey.
urnicola O. Sacken, Canadian Entomol. Nov. 1875. — On *Urtica gracilis*; Trenton Falls N. Y.
vaccinii O. Sacken, Monogr. I, 196. — On *Vaccinium*; Distr. Columbia.
verrucicola O. Sacken, Canadian Entomol. Nov. 1875. — On *Tilia americana*, New England.
vitis-coryloides Walsh, Proc. Entom. Soc. Phil. III, 588; l. c. VI, 224; Amer. Entomol. I, 107, figure 86 (figure of the gall); Riley, 5th Report, 116; Packard's Guide, 376, fig. 284. — On *Vitis cordifolia* and *riparia*.
vitis-pomum Walsh and Riley, Amer. Entomol. I, 106; fig. 85; Riley 5th Report, 114, with figure; the latter is reproduced in Packard's Guide, 378, f. 283. — On *Vitis cordifolia*.
viticola O. Sacken, Monogr. I, 202. — On *Vitis*. The gall *Vitis-lituns* Riley, Amer. Ent. II, 28, f. 27; also l. c. 113; also 5th Report, 118, is the same as *viticola*.

Observation. In the Western Diptera, 192, I described galls of Cecidomyiæ which I observed on the following plants in California.

Juniperus californicus.
Lupinus albifrons.
Audibertia sp.
Garrya fremontii.
Artemisia californica.
Baccharis pilularis.

Tritozyga.

Loew, Monographs etc. I, 178; 1862, Tab. I, f. 13. (Wing.)
 The species is not described; it was from Distr. Columbia.

Campylomyza.

Meigen, Syst. Besch. I, 101; 1818.

scutellata Say, J. Acad. Phil. III, p. 17, 1; Compl. Wr. II, 44; Wiedemann, Auss. Zw. I, 22, 1. — Missouri.

FAMILY MYCETOPHILIDAE. (?)**Mycetobia.**

Meigen, System. Besch. I, 229; 1818.

divergens Walker, Dipt. Saund. 418. — Atlantic States. (I did not succeed in finding it in the Brit. Mus.)

Ditomyia.

Winnertz, Stett. Ent. Z. VII, 15; 1846.

**euzona* Loew, Centur. IX, 1. — New York.

Plesiastina.

Winnertz, Stett. Ent. Z. XIII, 55; 1852.

**lauta* Loew, Centur. IX, 3. — New York.

**tristis* Loew, Centur. IX, 2. — Distr. Columbia.

Bolitophila.

Meigen, System. Besch. I, 220; 1818.

**cinerea* Meigen etc., Winnertz, Pilzm. 674. — Europe and North-America.
[Loew in litt.]

disjuncta Loew (undescribed) is likewise common to both continents.
[White Mts., N. H.]

Macrocera.

Meigen, Illiger's Magaz. II, 261; 1803.

**clara* Loew, Centur. IX, 6. — Distr. Columbia.

**formosa* Loew, Centur. VII, 8. — New York.

**hirsuta* Loew, Centur. IX, 5. — Distr. Columbia.

**inconcinna* Loew, Centur. IX, 7. — Distr. Columbia.

Platyura.

Meigen, Illiger's Magaz. II, 264; 1803.

**diluta* Loew, Centur. IX, 9. — Distr. Columbia.

**divaricata* Loew, Centur. IX, 8. — Georgia.

fascipennis Say, Long's Exp'd. Append. 360; Compl. Wr. I, 244;
Wied. Auss. Zw. I, 61, 2. — N. W. Territory (Say).

**melasoma* Loew, Cent. IX, 12. — Distr. Columbia.

**mendica* Loew, Centur. IX, 10. — New York.

**mendosa* Loew, Centur. IX, 11. — Distr. Columbia.

**subterminalis* Say, J. Acad. Phil. VI, 152; Compl. Wr. II, 350. — Indiana.

Ceroplatus.

Bosc, Actes de la Soc. d'Hist. Nat. de Paris I, 1, 42; 1792.

- ***carbonarius** Bosc, Nouv. Dict. d'Hist. Nat. 1^{ère} édit. IV, 543; 2^e édit. T. V, 585, tab. B, 21, figs. 4, 4; Fabricius, Syst. Antl. 16, 2; Wiedemann, Auss. Zw. I, 61, 3; Dufour, Ann. des Sci. Nat. 2^e ser. T. XI (1839), 202; Macquart, Dipt. Exot. I, 1, 77, tab. XI, fig. 1. — Carolina.

Asyndulum.

Latreille, Hist. Nat. des Crust. et des Ins. XIV. 290; 1804.

- ***coxale** Loew, Centur. IX, 4. — Huds. B. Territ.

Observation. For *Asyndulum tenuipes* Walker, List etc. I, 86, see *Blepharocera capitata* Loew.

Diomonus.

Walker, List, etc. I, 87; 1848.

- ***nebulosus** Walker, List, etc. I, 87. — Huds. B. Territ.

Neoempheria.

Empheria, Winnertz, Pilzm. 1863. (?)

- ***balioptera** Loew, Centur. IX, 13. — Illinois.

- ***didyma** Loew, Centur. IX, 14. — English River.

Sciophila bimaculata Loew, Centur. VII, 9 (change of name by Loew).

- ***nepticula** Loew, Centur. IX, 15. — Georgia.

Polylepta.

Winnertz, Pilzm. 1863.

- ***fragilis** Loew, Centur. IX, 16. — Massachusetts.

Sciophila.

Meigen, System. Besch. I. 245; 1818.

- ***appendiculata** Loew, Centur. IX, 19. — New York.

- ***biseriata** Loew, Centur. IX, 20. — Red River of the North.

bifasciata Say, Long's Exped. App. 363; Compl. Wr. I, 246; Wiedemann, Auss. Zw. I, 62, 1. — N. W. Territory (Say). [perhaps an *Empheria*. — Loew in litt.]

grisea Walker, List, etc. I, 92. — Huds. B. Territ.

hirticollis Say, Long's Exped. App. 362; Compl. Wr. I, 246; Wiedemann, Auss. Zw. I, 64, 6. — N. W. Territ. (Say).

littoralis Say, Long's Exped. App. 361; Compl. Wr. I, 245; Wiedemann, Auss. Zw. I, 64, 5. — Lake Superior.

obliqua Say, Long's Exped. App. 363; Compl. Wr. I, 247; Wiedemann, Auss. Zw. I, 63, 3. — N. W. Territory (Say).

- ***obtruncata** Loew, Centur. IX, 18. — Distr. Columbia.

* *onusta* Loew, Centur. IX, 17. — Distr. Columbia.

* *tantilla* Loew, Centur. IX, 21. — Distr. Columbia.

popocatepetli Bellardi, Saggio etc. I, 11. — Mexico.

Observation. For *Sc. bimaculata* Loew, Centur. VII, 9, see *Neompheria didyma*.

Lasiosoma.

Winnertz, Pilzm. 1863.

fasciata Say, Journ. Ac. Phil. III, 26, 1; Compl. Wr. II, 50 (*Sciophila*); Wiedemann, Auss. Zw. I, 62, 2 (*id.*). — Pennsylvania; Maryland.

* *quadratura* Loew, Centur. IX, 22. — Maine.

* *pallipes* Say, Long's Exp. App. 361; Compl. Wr. I, 245 (*Sciophila*); Wiedemann, Auss. Zw. I, 63, 4 (*id.*). — N. W. Territory (Say).

Tetragoneura.

Winnertz, Stett. Ent. Z. 1846, 18.

This genus occurs in the U. States according to Loew, Monographs etc. I, 14, although no species has, as yet, been described.

Endierana.

Loew, Centur. IX, 23; 1869.

* *obumbrata* Loew, Centur IX, 23. — New York.

Sytemna.

Winnertz, Pilzm. 1863.

* *polyzona* Loew, Centur. IX, 24. — Middle States.

Phthinia.

Winnertz, Pilzm. 1863.

* *tanypus* Loew, Centur. IX, 26. — New York.

Boletina.

Staeger, Kröjer's Tidskr. III, 234, 1840.

* *tricincta* Loew, Centur. IX, 25. — Maryland, Wisconsin.

groenlandica Staeger, Groenl. Antliater 17, 18; Holmgren, Ins. Nordgroenl. — Greenland.

arctica Holmgren, Ins. Nordgroenl. Oefv. Kongl. Vetensk. Acad. Förl 1872, No 6. — Northern Greenland.

Gnoriste.

Meigen, System. Besch. I, 1818; Winnertz, Pilzm. 778.

* *megarrhina* O Sacken, Western Diptera, 193. — Yosemite Valley, Cal.

Neoglaphyoptera.

Glaphyoptera Winnertz, Pilzm. 1863. (?).

* *bivittata* Say, J. Acad. Phil. VI, 152 (*Lejo*); Compl. Wr. II, 351. — Indiana (Say); Atlantic States.

Glaphyroptera lateralis v. d. Wulp, Tijdschr. v. Entom. 2 Ser. II, 131, Tab. III, f. 3. 4. [Loew, Zeitschrift für Ges. Naturw. Vol. XXXVI, 113.]

- **decora* Loew, Centur. IX, 28. — Georgia.
- **melaena* Loew, Centur. IX, 27. — New-York.
- **oblectabilis* Loew, Centur. IX, 31. — Middle States.
- **opima* Loew, Centur. IX, 29. — Connecticut.
- **sublumata* Loew, Centur. IX, 30. — New York.
- **ventralis* Say, Long's Exped. App. 364; Wiedem., Auss. Zw. I, 65, 2 (*Leja*). — N. W. Territ. (Say).
- **Winthemii* Lehmann, Insect. spec. nonnullae etc. Winnertz, Pilzm., 789. — Europe and North-America.
- Mycetophila maculipennis* Say, Long's Exp. App. 365; Compl. Wr. I, 248; Wied. Auss. Zw. I, 66, 2. [Loew in litt.]
- Leja trifasciata* Walker, List, etc. I, 93. — Huds. B. Territ. [Loew in litt.]
- **varia* Walker, List, etc., I, 93 (*Leja*). — Huds. B. Terr. (Wk.).

Leja.

Meigen, System. Besch. I, 253; 1818.

- **abbreviata* Loew, Cent. IX, 33. — Middle States.
- **sororecula* Loew, Centur. IX, 32. — New York.
- **unicolor* Walker, List, etc. I, 93. — Huds. B. Terr.
- punctata* Bellardi, Saggio etc. App. 5, f. 3. — Mexico.

Acnemia.

Winnertz, l. c. 1863.

- **psylla* Loew, Centur. IX, 34. — Maryland.

Docosia.

Winnertz, l. c. 1863.

- **dichroa* Loew, Centur. IX, 35. — Distr. Columbia.

Rhymosia.

Winnertz, l. c. 1863.

- **filipes* Loew, Centur. IX, 36. — Connecticut.

Allodia.

Winnertz, l. c. 1863.

- **crassicornis* Stannius, Obs. de Mycet. 1831, 22, 20; Winnertz, l. c. 828. — Europe and North-America; Pennsylvania, Maryland. [Loew in litt.]

Trichonta.

Winnertz, l. c. 1863.

- **foeda* Loew, Centur. IX, 38. — Middle States.
- **vulgaris* Loew, Centur. IX, 37. — Distr. Columbia.

Zygomysia.

Winnertz, l. c. 1863.

*ignobilis Loew, Centur. IX, 39. — Middle States.

*ornata Loew, Centur. IX, 40. — Pennsylvania.

Epicrypta.

Winnertz, l. c. 1863.

*pulicaria Loew, Cent. IX, 41. — Pennsylvania.

Mycothera.

Winnertz, l. c. 1863.

*paula Loew, Centur. IX, 42. — Middle States.

Mycetophila.

Meigen, Illiger's Magaz. II, 263. 1803.

*bipunctata Loew, Centur. IX, 44. — Wisconsin.

*discoidea Say, J. Acad. Phil. VI, 153; Compl. Wr. II, 351. — Indiana.

*extincta Loew, Centur. IX, 43. — Middle States.

*fallax Loew, Centur. IX, 50. — Middle States.

ichneumonca Say, J. Acad. Phil. III, 16, 1; Compl. Wr. II, 43; Wiedemann, Auss. Zw. I, 67, 3. — Pennsylvania.

*inculta Loew, Centur. IX, 46. — Middle States.

*monochaeta Loew, Centur. IX, 54. — Distr. Columbia.

*mutica Loew, Centur. IX, 45. — Middle States.

nubila Say, J. Acad. Phil. VI, 6, 153; Compl. Wr. II, 352. — Indiana.

*pinguis Loew, Centur. IX, 47. — Maine; English River.

*polita Loew, Centur. IX, 53. — New York.

*procera Loew, Centur. IX, 55. — New York.

*punctata Meigen etc.; Winnertz, l. c. 1916. — Europe and North-America (Pennsylvania; Loew, *in litt.*).

*quatuornotata Loew, Centur. IX, 52. — Maryland.

*scalaris Loew, Centur. IX, 48. — Middle States.

sericea Say, Long's Exped. App. 365; Compl. Wr. I, 248; Wiedemann, Auss. Zw. I, 66, 1. — N. W. Territ.

*sigmoides Loew, Centur. IX, 51. — Middle States.

*trichonota Loew, Centur. X, 49. — Distr. Columbia.

Observation. Mr. Walker's species:

bifasciata, Walker, List, etc. I, 96. — Huds. B. Terr.

contigua Walker, List, etc. I, 96. — Nova Scotia.

despecta Walker, List, etc. I, 101. — Huds. B. Terr.

laeta Walker, List, etc. I, 97. — Nova Scotia.

obscura Walker, List, etc. I, 101. — Huds. B. Terr.

parva Walker, List, etc. I, 97. — Huds. B. Terr.

plebeja Walker, List, etc. I, 100. — Huds. B. Territ.

propinqua Walker, List, etc. I, 96. — Nova Scotia.

Sciara.Meigen, Illiger's Magaz. II, 263; 1803; *Molobrus* Latr. (¹⁰).

abbreviata Walker, List, etc. I, 109. — Huds. B. Terr.

- atrata* Say, Long's Exp. App. 366, 1. Compl. Wr. I, 249; Wied. Auss. Zw. I, 70, 9. — N. W. Terr. (Say).
- dimidiata* Say, Spec. of Amer. Ins. found by Jos. Barabino 15. Compl. W. I, 308. — Louisiana.
- exigua* Say, Long's Exp. App. 367, 4; Compl. Wr. I, 249; Wied. Auss. Zw. I, 69, 7. — N. W. Terr. (Say).
- exilis* Say, J. Acad. Phil. VI, 154; Compl. Wr. II, 352. — Indiana.
- femorata* Say, J. Acad. Phil. III, 78, 1; Compl. Wr. II, 70; Wied. Auss. Zw. I, 70, 8. — Pennsylvania.
- flavipes* Meigen, etc. Staeger, Groenl. Antliater. — Europe, Greenland.
- fraterna* Say, Long's Exped. App. 367, 3; Compl. Wr. I, 249; Wied. Auss. Zw. I, 69, 6. — N. W. Terr. (Say).
- fuliginosa* Fitch, First and Second Report, etc. 255 (*Molobrus*). — New York.
- groenlandica* Holmgren, Ins. Nordgroenl. Oefv. Kongl. Vet. Acad. Förh. 1872, No. 6 — North-Greenland.
- inconstans* Fitch, l. c. 255 (*Molobrus*). — New York.
- iridipennis* Zetterstedt, Ins. Lapponica; Staeger, Groenl. Antliater. — Greenland.
- Iurida* Walker, List, etc. I, 106. Dipt. Saunders, 418. — Trenton Falls.
- mali* Fitch, First and Second Report etc. 254 (*Molobrus*). — New York.
- nigra* Wiedemann, Dipt. Exot. I, 44, 7. Auss. Zw. I, 68, 3. — Savannah.
- * *ochrolabis* Loew, Centur. IX, 57. — New York.
- perpusilla* Walker, List, etc. I, 106. — Huds. B. Terr.
- polita* Say, Long's Exp. App. 366, 2; Compl. Wr. I, 249; Wied. Auss. Zw. I, 70, 10. — N. W. Terr.
- punctata* Walker, List, etc. I, 106. — N. America.
- robusta* Walker, List etc. I, 105. — Huds. B. Terr.
- rotundipennis* Macquart, Dipt. Exot. I, 2, 178; Bellardi, Saggio etc. I, 13. — Carolina (Macq.); Mexico (Bellardi).
- * *sciophila* Loew, Centur. IX, 56. — Distr. Columbia.
- vulgaris* Fitch, First and Second Report etc. 255 (*Molobrus*). — New York.
- atra* Macquart, Dipt. Exot. I, 1, 78; Bellardi, Saggio etc. I, 12. — Brazil (Macq.); Mexico (Bellardi); Schiner (Novara, 11) thinks this is *Sciara americana* Wiedem.
- gigantea* Macquart, Dipt. Exot. 1er Suppl. 19; Bellardi, Saggio etc. I, 13. — New Granada (Macq.; Mexico (Bellardi).
- unicolor* Say, J. Acad. Phil. VI, 153; Compl. Wr. II, 351. — Mexico.

Trichosia.

- Winnertz, Beitr. z. Monogr. d. Sclarinen, 1867. (10)
- * *hebes* Loew, Centur. IX, 58. — New York.

Zygoneura.

- Meigen, System. Besch. Vol. VI, 1830;
- Winnertz, Beitr. z. Monogr. d. Sclarinen.
- * *toxoneura* O. Sacken, Proc. Ent. Soc. Phil. 1862, 165 (*Sciara*). — Distr. Columbia.

FAMILY SIMULIDAE.

Simulium.

Latreille, Hist. Nat. Crust. et Ins. XIV, 294; 1804. ⁽¹¹⁾.

- decorum* Walker, List etc. I, 112. — Huds. B. Terr.
 * *invenustum* Walker, List, etc. I, 112. — Huds. B. Terr.
 * *piscicidium* Riley, Amer. Ent. II, 367 (♀). — Mumford, N. Y.
 * *venustum* Say, J Acad. Phil. III, 28; Compl. Wr. II, 51; Wied., Auss. Zw. I, 71, 1. — Ohio; Distr. Columbia.
 * *vittatum* Zetterstedt, Ins. Lapp. 803; Dipt. Scand. X, 3423; Staeger, Groenl. Antliater; Holmgren, Ins. Nordgroenl. p. 104. — Greenland.
Culex reptans O. Fabricius (non Linné) Fauna Groenl. 211, 173.
 [Staeger and Schiödt, Berlin. Ent. Z. 1859, 112.]

- cinereum* Bellardi, Saggio etc. I, 13. — Mexico.
metallicum Bellardi, Saggio etc. I, 14. — Mexico.
mexicanum Bellardi, Saggio etc. App. 6. — Mexico.
ochraceum Walker, Trans. Ent. Soc. N. Ser. V, 332. — Mexico.
quadrivittatum Loew, Centur. II, 2. — Cuba.

Observation. *Simulium molestum* Harris, Ins. Inj. to Veget. 3d edit. 601 has never been described; *Simulium nocivum* Harris, l. c. 602 is a *Ceratopogon*.

FAMILY BIBIONIDAE.

Bibio.

Geoffroy, Hist. Nat. des Ins. II, 571, 3; 1764; *Hirtea* Fabricius, Zetterstedt etc. ⁽¹²⁾.

- * *albipennis* Say, J. Acad. Phil. III, 77, 3; Compl. Wr. II, 69; Wiedemann, Auss. Zw. I, 80, 7; Macquart, Dipt. Exot. I, 1, 88, 5, tab. XIII, f. 2. — Atlantic States.
articulatus Say, J. Acad. Phil. III, 77, 4; Compl. Wr. II, 69; Wied. Auss. Zw. I, 81, 8. — Pennsylvania. ⁽¹³⁾.
 * *abbreviatus* Loew, Centur. V, 9. — Distr. Columbia.
 * *basalis* Loew, Centur. V, 11. — New Hampshire.
baltimoricus Macquart, Dipt. Exot. 5e Suppl., 17, 12. — Baltimore.
brunnipes Fabricius, Ent. Syst. IV, 250, 80 (*Tipula*); Syst. Antl. 54, 15 (*Hirtea*); Wiedemann, Auss. Zw. I, 81, 10. — Newfoundland (Fab.)
Tipula rufipes Fabricius, Mant. Ins. II, 327, 69 [Wied.].
canadensis Macquart, Dipt. Exot. I, 2, 179; (?) Bellardi, Saggio etc. I, 18. — Canada, Mexico (Bellardi).
castanipes Jaenicke, Neue Exot. Dipt. 10. — Illinois.
 * *femoratus* Wiedemann, Dipt. Exot. I, 35, 2; Auss. Zw. I, 79, 4. — Atlantic States.
Bibio fuscipennis Macquart, Dipt. Exot. I, 1, 87, 3. (Loew in litt.)
 * *fraternus* Loew, Centur. V, 8. — Distr. Columbia.

- **gracilis* Walker, List, etc. I, 123. — Nova Scotia.
- **inaequalis* Loew, Centur. V, 3. — Sitka.
- **longipes* Loew, Centur. V, 12. — Distr. Columbia.
- **lugens* Loew, Centur. V, 6. — Winnipeg.
- **nigripilus* Loew, Centur. V, 10. — Winnipeg.
- **obscurus* Loew, Centur. V, 5. — Huds. B. Terr.
pallipes Say, J. Acad. Phil. III, 76, 1; Compl. Wr. II, 68; Wiedemann, Auss. Zw. I, 81, 9; — Pennsylvania. (Compare also: Van der Wulp, Tijdschr. etc. 2^d Ser. IV, 81.)
- **rufithorax* Wiedemann, Auss. Zw. I, 78, 2. — Pennsylvania, Florida.
senilis v. d. Wulp, Tijdschr. Ent. 2^d Ser. IV, 81. — Wisconsin.
- thoracica* Say, Long's Exp. App. 368; Compl. Wr. I, 250; Wiedemann, Auss. Zw. I, 78, 1. — Florida.
- **variabilis* Loew, Centur. V, 7. — New Hampshire, Sitka.
- **xanthopus* Wiedemann, Auss. Zw. I, 80; Macquart, Dipt. Exot. I, 1, 88, 4. — Atlant. States.
- **hirtus* Loew, Cent. V, 2; O. Sacken, Western Diptera, 211. — California.
- **nervosus* Loew, Centur. V, 4. — California.

criorrhinus Bellardi, Saggio etc. I, 17; Walker, Trans. Ent. Soc. N. S. V, 331. — Mexico.

dubius Bellardi, Saggio etc. I, 18 — Mexico.

fuligineus Bellardi, Saggio etc. I, 19. — Mexico.

piceus Bellardi, Saggio etc. I, 17. — Mexico.

Observation. Mr. Walker's species;
fumipennis Walker, List, etc. I, 122. — Huds. B. Terr.
humeralis Walker, l. c. 121. — Nova Scotia.
scita Walker, l. c. 122. — Nova Scotia.
striatipes Walker, l. c. — Nova Scotia.
vestita Walker, l. c. — Nova Scotia.

Dilophus.

Meigen, Illiger's Magaz. II, 264; 1803.

- **breviceps* Loew, Centur. IX, 59. — New Hampshire.
- **dimidiatus* Loew, Centur. VIII, 3. — New York.
- **longiceps* Loew, Centur. I, 14. — Illinois.
- **orbatus* Say, J. Acad. Phil. III, 77, 5 (*Bibio*); Compl. Wr. II, 69; Wiedemann, Auss. Zw. I, 77, 6. — Pennsylvania; Mexico (Bellardi, Saggio etc. I, 19).
- **obesulus* Loew, Centur. IX, 60. — Distr. Columbia.
- **serotinus* Loew, Centur. I, 15. — Illinois.
spinipes Say, J. Acad. Phil. III, 79, 2; Wiedemann, Auss. Zw. I, 75, 1. — Missouri.
- stigmaterus* Say, J. Acad. Phil. III, 78, 1; Wiedemann, Auss. Zw. I, 76, 4. — Missouri.
- **tygius* Say, Ins. of Louisiana, coll. by J. Barabino; Compl. Wr. I, 309. — Louisiana (there is an earlier *D. stygius* Say, from Mexico).

- thoracicus** Say, J. Acad. Phil. III, 80, 3; Wiedemann, Auss. Zw. I, 77, 5. — Pennsylvania, Maryland.
***tibialis** Loew, Centur. IX, 61. — Sitka.
maculatus Bellardi, Saggio etc. I, 19; tab. I, f. 5. — Mexico.
minutus Bellardi, Saggio etc. App. 7. — Mexico.
stygius Say, J. Acad. Phil. VI, 155; Compl. Wr. II, 352. — Mexico.

Observation. Mr. Walker's species.

fulvicoxa Walker, List, etc. I, 117. — Huds. B. Terr.

serraticollis Walker, List, etc. I, c. — Huds. B. Terr.

Hesperinus.

- Walker, List, etc. I, 81, 1848; *Spodius* Loew, Berl. Ent. Z. II, 101; Tab. I, f. 1—15; 1858. ⁽¹²⁾.
***brevifrons** Walker, List, etc. I, 81. — British Possessions; White Mts., N. H. and Colorado Mts., in the alpine region.

Plecia.

Wiedemann, Auss. Zw. I, 72; 1828. ⁽¹⁴⁾.

- ruficollis** Fabricius, Wiedemann, Auss. Zw. I, 72; Macquart, Hist. Nat. Dipt., Atlas, Tab. IV f. 17; Bellardi, Saggio etc. I, 15. — South America; Mexico; Florida. (Lake Harney, by Messrs. Hubbard and Schwarz.)
***heteroptera** Say, J. Acad. Phil. III, 77, 2; Compl. Wr. II, 69 (*Bibio*): Wiedemann, Auss. Zw. I, 80, 6 (*id.*) — Atlantic States.
Penthetria atra Macquart, Hist. Nat. Dipt. I, 175, 2. Compare also Van der Wulp, Tijdschr. etc. 2^d Ser. IV, 81.
Eupeitemus ater Macquart, Dipt. Exot. I, 1, 85; Tab. XII, f. 3. — Philadelphia.
Plecia longipes Loew, Berl. Ent. Z. II, 109. — New Orleans.
bicolor Bellardi, Saggio etc. I, 16. — Mexico.
heros Say, J. Acad. Phil. VI, 154 (*Penthetria*); Compl. Wr. II, 352 (*id.*) — Mexico.
nigerrima Bellardi, Saggio etc. I, 14. — Mexico.
rostrata Bellardi, Saggio etc. I, 15. — Mexico.
rufithorax Walker, List, etc. I, 116. — Jamaica.
vittata Bellardi, Saggio etc. App. 7, f. 4. — Mexico.

Observation. *Plecia bimaculata* Walker, Dipt. Saund. 422, United States, is the female of one of the common North-American *Dilophus*.

Scatopse.

Geoffroy, Hist. Nat. d. Ins. II, 545; 1764. ⁽¹⁵⁾.

- *atrata** Say, Long's Exp. App. 367; Compl. Wr. I, 250; Wiedemann, Auss. Zw. I, 71, 1. — Philadelphia.
Scatopse recurva Loew, Linn. Entom. I, 330, Tab. III, f. 4. — Europe. (Loew. Sillim. Journ. N. Ser. Vol. XXXVII, 317.)

* *notata* Linn., Meigen etc. — This common European species, also occurs in N. Am.

pulicaria Loew, Linn. Entom. I, 333, Tab. III, f. 10. — Europe, and also in Wisconsin, according to v. d. Wulp, Tijdschr. etc. 2^d Ser. IV, 80.

* *pygmaea* Loew, Centur. V, 13. — Distr. Columbia.

Observation. The following three species of Mr. Walker's are mentioned separately, as their very short descriptions do not show any tangible differences and the identification would be, I should say, impossible.

nitens Walker, List, etc. I, 114. — Huds. B. Terr.

obscura Walker, List, etc. 114. — Huds. B. Terr.

pusilla Walker, List, etc. I, 114, — Huds. B. Terr.

Aspistes.

Meigen, Syst. Besch. I, 319, 1818; *Arthria* Kirby, Fauna Bor. Am. 311; 1837. ⁽¹⁶⁾

* *analis* Kirby, Fauna Bor. Am. Ins. 311, 1; Tab. V, f. 8. (*Arthria*). — Arctic America.

Aspistes borealis Loew, Stett. Ent. Z. 1847, 69. — North of Europe and North-America (About the occurrence in N. A. see Loew in Sillim. Journ. l. c. 317).

FAMILY BLEPHAROCERIDAE. ⁽¹⁷⁾

Blepharocera.

Blepharicera Macquart, Ann. Soc. Ent. de Fr. II, 1, 61; 1843;

Asthenia Westwood 1842; preocc.

* *capitata* Loew, Centur. IV, 43. — Distr. Columbia; White Mts., N. H. *Asyndulum tenuipes* Walker, List etc. I, 86. — Huds. Bay Territ. (!)

* *yosemite* O. Sacken, Western Diptera, 195. — Yosemite Valley, Calif.

Bibiocephala.

O. Sacken, in Hayden's Report on Geol. Survey Color. Territ. 1873; translated by Loew in Zeitschr. für Entomol. Neue Folge, Heft 6, Breslau 1877, p. 95.

* *grandis* O. Sacken, Hayden's Report 1873, 564; translated by Loew, l. c. 98. — Rocky Mountains, Colorado.

Observation. For *Asthenia americana* Walker, List etc. I, 28, see the note ⁽¹⁸⁾.

Paltostoma.

Schiner, Verh. Zool. Bot. Ges. 1866, p. 931; Novara etc. p. 27.

superbiens Schiner, Novara etc. p. 28, Tab. II, f. 4, — South-America. (I quote this species, because I have seen specimens from Mexico, in Mr. Bellardi's collection, which may perhaps belong to it. ⁽¹⁹⁾.)

FAMILY CULICIDAE.

Megarhina.

R. Desvoidy, Essai etc. in the Mém. de la Soc. d'hist. nat. de Paris III, 412; 1827.

- * *haemorrhoidalis* Fabricius, Ent. Syst. IV, 401, 5 (*Culex*); Syst. Antl. 35, 8. (*id.*); Wiedemann, Dipt. Exot. I, 6, 1 (*id.*); Auss. Zw. I, 2 (*id.*) — Cayenne; Cuba.

Observation. *Megarhina ferox* Wied. (Brazil), mentioned in my first Catalogue, is omitted here, as its occurrence in Georgia (Walker, List, etc. I, 1) is exceedingly doubtful.

Culex.

Linné, Fauna Suecica, 1761.

- * *annulatus* Meigen etc. — Europe and the North West of North-America (brought by R. Kennicott from Mackenzie River).

Boscii R. Desvoidy, Culicidae etc. (*Psorophora*). — Carolina.

- * *ciliatus* Fabricius, Entom. Syst. IV. 401, 6; Syst. Antl. 35, 10; Coquebert, Ill. Icon. Ins. Tab. XVII, f. 7; St. Fargeau et Serville, Encycl. Méthod. X, 658; Wiedemann, Auss. Zw. I, 3, 5; Macquart, Hist. Nat. Dipt. I, 36, 15; Dipt. Exot. 4^e Suppl. 11, Tab. I, f. 1. — Atlantic States.

Culex molestus Wiedemann, Dipt. Exot. I, 7, 4 [Wied.].

Culex contereus Walker, Dipt. Saunders, 427 [!]. — U. S.

consobrinus Rob. Desvoidy, Culicidae, 408, 27. — Pennsylvania.

muscius Say, J. Acad. Phil. VI, 149; Compl. Wr. II, 348. — Indiana.

nigripes Zetterstedt, Insecta Lapponica; Dipt. Scand. IX, 3458, 5; Staeger, Groenl. Antliater; Holmgren, Ins. Spetsb; Ins. Nordgroenl. 104. — Spitzbergen, Greenland.

Culex pipiens O. Fabricius, Fauna Groenl. 209, 171 [Schiodte].

Culex caspius Pallas in Curtis, Ins. Capt. Ross's Voyage, LXXVI [Schiodte].

punctor Kirby, Fauna Bor. Amer., Insects 308, 1. — Arctic America.

pungens Wiedemann, Auss. Zw. I, 9, 16. — New Orleans.

rubidus R. Desvoidy, Culicidae etc. — Carolina.

taeniatus Wiedemann, Auss. Zw. I, 10, 18. — Georgia.

- * *taeniorhynchus* Wiedemann, Dipt. Exot. I, 43, 1; Auss. Zw. I, 8, 13. — Atlantic St.; Mexico (Wied.); S. America (Schiner, Novara, 31).

Culex damnosus Say, Journ. Acad. Phil. III, 11, 3; Compl. Wr. II, 40. (Change of name by Wied.)

Culex sollicitans Walker, Dipt. Saund. 427. [!] — U. S.

testaceus v. d. Wulp, Tijdschr. v. Entom. 2^d Ser. II, 128, Tab. III, f. 1. — Wisconsin.

- * *triseriatus* Say, Journ. Acad. Phil. III, 12, 4; Compl. Wr. II, 40; Wiedemann, Auss. Zw. I, 11, 19. — Pennsylvania (Say).

incidens Thomson, Eugenie's Resa etc. 443. — California.

punguis Walker, in Lord's Naturalist etc. II, 337. — Vancouver.

- Bigoti** Bellardi, Saggio etc. App. 3, fig. 1. — Mexico.
cubensis Bigot, R. de la Sagra's Hist. etc. 786. — Cuba.
***fasciatus** Fab. Syst. Anth. 36, 13; Wiedemann, Auss. Zw. I, 8, 13. — Jamaica.
Culex mosquito R. Desv. Culicidae etc. 390; Guérin et Percheron, Genera etc. (figured carefully) Dipt. tab. ii, fig. 1. Macq. Hist. Nat. Dipt. I, 35, 8. — Cuba.
frater R. Desvoidy, Culicidae etc. (he quotes *C. fasciatus* Wied. as synonym, but distinguishes it from *C. fasciatus* Fab.) — West Indies.
posticatus Wiedemann, Dipt. Exot. I, 43, 2; Auss. Zw. I, 9, 15. — Mexico.
mexicanus Bellardi, Saggio etc. I, 5. — Mexico.

Observation. Mr. Walker's species of *Culex*, omitted in the preceding list, are given here:

excitans List, etc. I, 4. — Georgia.
excrucians Dipt. Saund. 429. — Nova Scotia.
impatiens List etc. I, 5. — Huds. B. Terr.
impiger List etc. I, 6. — Huds. B. Terr.
implacabilis List etc. I, 7. — Huds. B. Terr.
perturbans Dipt. Saund. 428. — United States.
provocans List etc. I, 7. — Nova Scotia.
stimulans List etc. I, 4. — Nova Scotia.
terrificans Dipt. Saund. 428. — United States.

About the typical specimens of these species in the Brit. Mus. see the note. (20).

Anopheles.

- Meigen**, Syst. Besch. I, 10, 1818. (21).
annulimanus v. d. Wulp, Tijdschr. v. Ent. 24 Ser. II, 129, Tab. III, f. 2. — Wisconsin.
***crucians** Wiedemann, Auss. Zw. 12, 1. — Maryland (Say).
Culex punctipennis Say, Journ. Ac. Phil. III, 9, 1; Compl. Wr. II, 39 [Wied].
ferruginosus Wiedemann, Auss. Zw. I, 12, 2. — New Orleans (Wied); On the Mississippi (Say).
Culex quinquefasciatus Say, Journ. Ac. Phil. III, 10, 2; Compl. Wr. II, 39. [Change of name by Wied.]
maculipennis Meigen } European species, which also occur in N. A.
nigripes Staeger } according to Loew, Sillim. Journ. N. Ser. Vol. XXXVII, 317.
***quadrinaculatus** Say, Long's Exp. App. 356; Compl. Wr. I, 241; Wiedemann, Auss. Zw. I, 13, 4. — Atlantic States and Canada, also in the South of Europe.
Culex hiemalis Fitch, Winter Insects etc.
Anopheles pictus Loew, Dipt. Beitr. I, 4. — South of Europe. [Loew, Sillim. Journ. N. Ser. Vol. XXXVII, 317.]
albimanus Wiedemann, Auss. Zw. I, 13, 3. — San Domingo.

Aedes.

- Meigen**, Syst. Besch. I, 13; 1818.
***fuscus** O. Sacken, Western Diptera, 191. — Cambridge, Mass.
***sapphirinus** O. Sacken, Trans. Amer. Ent. Soc. II, 47. — New York, Distr. Columbia.

Corethra.

Meigen, Illiger's Magaz. II, 260; 1803.

- **punctipennis* Say, Journ. Acad. Phil. III, 16; Compl. Wr. II, 43;
Wiedemann, Auss. Zw. I, 14, 1. — Pennsylvania (Say).
**trivittata* Loew, Centur. II, 1. — Maine; Yukon River, Alaska.

FAMILY CHIRONOMIDAE. ⁽²²⁾**Diamesa.**

Meigen, Syst. Besch. VII, 72; 1830.

- Waltlii* Meigen etc. Staeger, Groenl. Antliater. — Europe, Greenland.

Chironomus.

Meigen, Illig. Mag. II, 260; 1803.

- albistria* Walker, List, etc. I, 17. — Huds. Bay.
anticus Walker, List, etc. I, 21. — Georgia.
aterrimus Meigen, etc., Staeger, Groenl. Antliater. — Europe, Greenland.
attenuatus Walker, List, etc. I, 20. — Huds. Bay.
basalis Staeger, Groenl. Antliater. 351, 6; Holmgren, Ins. Nordgroenl. 105. — Greenland.
bimacula Walker, List, etc. I, 15. — Huds. Bay.
borealis Curtis, Ins. of Ross's Voy. LXXVII. — Arctic America.
brunneus Walker, List, etc. I, 21. — Huds. Bay.
byssinus Meigen, etc. Staeger, Groenl. Antliater. — Europe, Greenland.
confinis Walker, List, etc. I, 15. — Huds. Bay.
crassicollis Walker, l. c. 18. — Huds. Bay.
cristatus Fabr. Syst. Antl. 39, 4. Wiedemann, Auss. Zweifl. I, 14, 1.
Macquart, Hist. Nat. Dipt. I, 50, 10. — New York (Fab.)
devinctus Say, Journ. Acad. Phil. VI, 150; Compl. Wr. II, 349. — Indiana.
festivus Say, Journ. Acad. Phil. III, 13, 2; Compl. Wr. II, 41; Wied. Anal. Entom. 10; Auss. Zw. I, 16, 5. — Illinois (Say).
fimbriatus Walker, l. c. 20. — Huds. Bay.
flavieingula Walker, l. c. I, 20. — Huds. Bay.
frigidus Zetterstedt, Insecta Lapponica; Dipt. Scand. IX, 3516, 33. Staeger, Groenl. Antliater; Holmgren, Ins. Nordgroenl. 105. — Greenland; also Northern Europe
geminatus Say, J. Acad. Phil. III, 14, 4; Compl. Wr. II, 42. — Pennsylvania.
glaucoerus Wiedemann, Auss. Zweifl. I, 15, 3. — Atlantic States.
Chironomus stigmaterus Say, Journ. Acad. Phil. III, 15, 6; Compl. Wr. II, 42. [Change of name by Wied.]
hyperboreus Staeger, Groenlands Antliater; Zetterstedt, Dipt. Scand. IX, 3487. — Greenland; also Northern Europe.
**intermedius* Staeger, Kröjer's Tidskr. II, 559. — Europe and N. W. of North-America (brought together with *plumosus*, of which it may be only a smaller variety).

- juncundus** Walker, List, etc. I, 16. — Georgia.
lasiomerus Walker, l. c. I, 19. — Huds. Bay.
lasiopus Walker, l. c. I, 19. — Huds. Bay.
lineola Wiedemann Auss. Zw. I, 17, 6. — Pennsylvania.
Chironomus lineatus Say, J. Acad. Phil. III, 14, 5; Compl. Wr. II, 42. [Wied.].
lobifer Say, J. Acad. Phil. III, 12, 1; Compl. Wr. II, 41. (*C. lobiferus*); Wiedemann, Auss. Zweifl. I, 16, 4; Macquart, Hist. Nat. Dipt. I, 50, 12. — Pennsylvania.
modestus Say, J. Acad. Phil. III, 13, 3; Compl. Wr. II, 41; Wiedemann, Auss. Zw. I, 18, 8. — Pennsylvania.
nigritibia Walker, List, etc. I, 16. — Huds. Bay.
nivoriundus A. Fitch, Winter Insects, 1. — New-York.
pellucidus Walker, l. c. 21. — Huds. Bay.
oceanicus Packard, Proc. Essex Instit. VI, 42 (figure of larva on p. 43, of imago on p. 45). — Salem, Mass.
picipes Meigen etc, Staeger, Groenlands Antliater. — Europe, Greenland.
***plumosus** Linné, Meigen etc. — Europe and N. W. of North-America (brought by R. Kennicott from Mackenzie River).
polaris Kirby, Suppl. to App. to Parry's First Voyage; Curtis, Ins. of Ross's Voyage, LXXVII tab. A, figs. 14 and 2. — Arctic America; Greenland.
pumilio Holmgren, Ins. Spetsb. 41; Ins. Nordgroenl. 105. — Spitzbergen and Greenland.
redenus Walker. Dipt. Saund. 422. — U. States.
stercorarius Zetterstedt, Dipt. Scand. IX, 3571, 97; Holmgren, Ins. Nordgroenl. 105. — Greenland; also in Europe.
taenionotus Say, J. Acad. Phil. VI, 149; C. Wr. II, 349. — Indiana.
trichomerus Walker, List, etc. I, 21. — Huds. Bay.
tricinctus Meigen, I, 41, 49. — Europe and N. America (Loew in litt.).
unicolor Walker, List, etc. I, 19. — Nova Scotia.
variabilis Staeger, Groenl. Antliater; Zetterstedt, Dipt. Scand. IX, 3519; — Greenland; also in the North of Europe.
***octopunctatus** Loew, Wien. Entom. Monatschr. V, 33. — Cuba.

Observation: *Chiron. riparius* Meig., *Chloris* M., *pedellus* Lin., *viridis* Macq. are european species, also occurring in North-Am., according to van der Wulp, Tijdschr. voor Entom. 2^d Ser. II, 126.

Tanypus. (²³).

Meigen, Illiger's Magaz II, 261; 1803.

- *annulatus** Say, J. Acad. Phil. III, 15, 1; Compl. Wr. II, 43; Wiedemann, Auss. Zw. I, 19, 3. — Pennsylvania.
baltimoreus Macquart, Dipt. Exot. 5^e Suppl. 15, 1. — Baltimore.
***bellus** Loew Centur. VII, 4. — Distr. Columbia.
chorcus Meigen etc. — Europe and North-America (Loew in Sillim. Journ. XXXVII, 317; Walker, Dipt. Saund. 422).

- crassinervis** Zetterstedt, Ins. Lapponica; Dipt. Scand. IX, 3599, 5; Staeger, Groenl. Antliater, p. 354, 11. — Greenland; also in Lapland.
- ***decedens** Walker, List, etc. I, 22. — Huds. B. Terr.
- ***flavicinctus** Loew, Centur. I, 2. — Pennsylvania.
- futilis** v. d. Wulp, Tijdschr. voor Entom. 2^d Ser. II, 130. — Wisconsin.
- ***hirtipennis** Loew, Centur. VII, 6. — Maine.
- pietipennis** Zetterstedt, Ins. Lapponica 818, 5; Staeger, Groenl. Antliater. — Greenland.
- ***pilosellus** Loew, Centur. VII, 7. — Dist. Columbia.
- ***pinguis** Loew, Centur. I, 1. — New York.
- ***pusillus** Loew, Centur. VII, 5. — Distr. Columbia.
- ***scapularis** Loew, Centur. VII, 1. — Distr. Columbia.
- ***thoracicus** Loew, Centur. VII, 3. — Distr. Columbia.
- tibialis** Staeger, Groenl. Antliater. — Greenland.
- tibialis** Say, J. Acad. Phil. III, 15, 2; Compl. Wr. II, 43; Wiedemann, Auss. Zw. I, 20, 4. — Pennsylvania.
- ***tricolor** Loew, Centur. I, 3. — New York.
- turpis** Zetterstedt, Ins. Lapp. 811, 8 (*Chironomus*); Staeger, Groenl. Antl. 350, 3 (?? query by Zetterstedt, Dipt. Scand. IX, 3516). — Lapland; also Greenland?
- ***humeralis** Loew, Centur. VII, 2. — Cuba.

Observation: *Tanyptus monilis* Lin., a European species, occurs in North-America (Wisconsin) according to Van der Wulp, Tijdschr. v. Entom. 2^d Ser. II, 126. *T. annulatus* Say looks very much like *T. monilis* Lin., and if Mr. Van der Wulp's identification is correct, I should have taken both for the same species.

Chasmatonotus.

Loew, Centur. V, 1; 1864.

- ***minimaculatus** Loew, Centur. V, 1. — White Mts, N. H.
- ***bimaculatus** O. Sacken, Western Diptera, 191. — Catskill, Mount House, N. Y.; Quebec (Can.).

Ceratopogon. (24).

Meigen, Illig. Magaz. II; 1803.

- ***albiventris** Loew, Centur. I, 7. — Georgia.
- ***argentatus** Loew, Centur. I, 5. — Distr. Columbia.
- basalis** Walker, List, etc. I, 27. — Trenton Falls.
- ***bimaculatus** Loew, Centur. I, 6. — Distr. Columbia.
- ***festivus** Loew, Centur. I, 13. — Pennsylvania.
- ***longipennis** Loew, Centur. I, 10. — Pennsylvania.
- ***lineatus** Meigen, Syst. Besch. etc. I, 80. — Europe and North America [the latter according to Loew, in Sillim. Journ. N. Ser. XXXVII, 317].
- obscurus** Walker, List etc. I, 26. — Huds. B. Terr.
- ***opacus** Loew, Centur. I, 9. — Distr. Columbia.
- parvus** Walker, List, etc. I, 26. — Huds. B. Terr.
- ***plebejus** Loew, Centur. I, 11. — Pennsylvania.
- ***rufus** Loew, Centur. I, 12. — Pennsylvania.

- seutellatus* Say, J. Acad. Phil. VI, 150; Compl. Wr. II, 349. — Indiana.
 **setulosus* Loew, Centur. I, 8. — Distr. Columbia.
sordidellus Zetterstedt, Ins. Lapp. 820, 6; Dipt. Scand. IX, 3640;
 Staeger, Groenl. Antliater. — Greenland.
Culex pulicinus (misprint for *pulicaris*) O. Fabricius, Fauna Groen-
 landica [Schödte].
transiens Walker, List, etc. I, 25. — Huds. B. Terr.
 **trivialis* Loew, Centur. I, 4. — Distr. Columbia.
 **genualis* Loew, Centur. VI, 1. — Cuba.

Oecaeta.

Poey, Memorias etc. Vol. I; 1851.

furens Poey, Memorias etc. I, 236, Tab. XXVII. — Cuba.

Heteromyia.

Say, Americ. Entom. Vol. II; 1825.

- **fasciata* Say, N. Am. Entom. Vol. II. Tab. XXXV; Compl. Wr. I, 79. —
 Atlantic States.

Observation: If this genus be adopted, it will have to include
 several other species, now placed in the genus *Ceratopogon*;
Cerat. argentatus Loew among them.

FAMILY ORPHNEPHILIDAE.

Orphnephila.

Haliday, Zool. Journ. V, 350; Tab. XV, f. 1—9; 1831; *Thaumalea*
 Ruthe 1831; *Chenesia* Macquart 1834.

- **testacea* Ruthe, Isis 1831, 1211 (1831); Haliday, l. c. (*O. devia*). —
 Europe and North-America; New York. [About the identity see
 Loew, Monogr. etc. I, 6.]

Observation. *Orphnephila* is a very heterogeneous form,
 which cannot well be referred to any of the existing families.

FAMILY PSYCHODIDAE.

Psychoda.

Latreille, Précis etc.; 1796.

- alternata* Say, Long's Exped. App. 358; Compl. Wr. I, 242; Wiede-
 mann, Auss. Zw. I, 23. — Pennsylvania.
degenera Walker, List etc. I, 33. — Huds. Bay Territ.

FAMILY TIPULIDAE. ⁽²⁵⁾.

SECTION I. LIMNOBINA.

Dicranomyia.

Stephens, Catal. Brit. Ins. 1829.

O. Sacken, Proc. Ac. Nat. Sc. Phil. 1859 and Monogr. IV, 53.

**badia* Walker, List etc. I, 46. (*Limnobia*); O. Sacken, Mon. etc. IV, 72. Tab. III, f. 2, forceps. — United States and British Possessions (Quebec); also in California.

Dicranomyia humidicola, O. Sacken, Proc. Ac. Nat. Soc. Phil. 1859, 210.

**brevivena* O. Sacken, Mon. etc. IV, 66. — New York, Distr. Columbia.

**distans* O. Sacken, Proc. Ac. Nat. Sc. Phil. 1859, 211; Mon. etc. IV, 67. — Florida.

**diversa* O. Sacken, Proc. Ac. Nat. Sc. Phil. 1859, 212; Mon. etc. IV, 64. — Distr. Columbia.

**defuncta* O. Sacken, Proc. Ac. Nat. Sc. Phil. 1859, 213; Monogr. etc. IV, 76. — Distr. Columbia; New York; Maine; Canada; California.

Limnobia simulans Walker, List, etc. I, 45. ²⁶.

**floridana* O. Sacken, Mon. etc. IV, 67. — Florida.

**gladiator* O. Sacken, Proc. Ac. Nat. Sc. Phil. 1859, 212; Mon. etc. IV, 63; Tab. III, f. 4, forceps. — Distr. Columbia.

**globithorax* O. Sacken, Mon. IV, 74. — New Hampshire; Distr. Columbia.

**haeretica* O. Sacken, Mon. etc. IV, 70; Tab. I, f. 3, wing. — New York; Fort Resolution, Huds. B. Terr.

**halterata* O. Sacken, Mon. etc. IV, 71. — Labrador.

**immodesta* O. Sacken, Proc. Ac. Nat. Sc. Phil. 1859, 211; Mon. etc. IV, 62. — Distr. Columbia; New York; Maine.

**liberta* O. Sacken, Proc. Ac. Nat. Sc. Phil. 1859, 209; Mon. etc. IV, 69; Tab. III, f. 3, forceps. — Atlantic States and Canada; a similar species occurs in Europe.

**longipennis* Schummel, Beitr. etc. 104, 2 (*Limnobia*). — O. Sacken, Mon. etc. IV, 61; Tab. I, f. 1, wing. — New York; Massachusetts; Quebec, Can.; also in Europe.

Dicranomyia immemor O. Sacken, Proc. Ac. N. Sc. Phil. 1861, 287.

**moriooides* O. Sacken, Mon. etc. IV, 73. — New York.

Dicranomyia morio O. Sacken (nec Fabr.), Proc. Ac. N. Sc. Phil. 1859, 212.

**pubipennis* O. Sacken, Proc. Ac. Nat. Sc. Phil. 1859, 211; Mon. etc. IV, 73; Tab. I, f. 2, wing. — Distr. Columbia; New York.

**pudica* O. Sacken, Proc. Ac. Nat. Sc. Phil. 1859, 212; Mon. etc. IV, 64. — Illinois.

**rara* O. Sacken, Mon. etc. IV, 75. — New York.

**rostrifera* O. Sacken, Mon. etc. IV, 65. — New York.

**stulta* O. Sacken, Proc. Acad. N. Sc. Phil. 1859, 210; Mon. etc. IV, 68. — New York, Canada.

- * *marmorata* O. Sacken, Proc. Acad. N. Sc. Phil. 1861, 238; Mon. etc. IV, 77. Compare also Western Diptera 197. — California.

Geranomyia.

- Haliday, Ent. Mag. I, 154; 1833; *Aporosa* Macquart, 1838; *Plettusa* Philippi 1865. Compare O. Sacken, Monogr. etc. IV, 78.
- * *canadensis* Westwood, Ann. Soc. Ent. France 1835, 683 (*Limnobia-rhynchus*). — O. Sacken, Mon. etc. IV, 80. — North America, from Canada to Florida; also in California.
- Geranomyia communis* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 207.
- * *diversa* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 207; — Mon. etc. IV, 80. — New York.
- * *rostrata* Say, Journ. Acad. Nat. Sc. Phil. III, 22, 6 (*Limnobia*); Compl. Wr. II, 47; Wiedemann, Auss. Zw. I, 35, 20. (*id.*). — O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 207; Mon. etc. IV, 79. — Atlantic States, Canada and Cuba (apparently the same species).
- intermedia* Walker, List, etc. I, 47 (*Limnobia*). — Jamaica.
- mexicana* Bellardi, Saggio etc. App. 4 (*Aporosa*). — Mexico.
- * *rufescens* Loew, Linn. Ent. V, 396, Tab. II, f. 9—12 (*Aporosa*). — Portorico.
- * *virescens* Loew; Linn. Ent. V, 396 (*Aporosa*). — St. Thomas.

Rhipidia.

- Meigen, Syst. Besch. I, 1818; O. Sacken Mon. etc. IV, 81 and III, in Add. and Corr.
- * *maculata* Meigen, Syst. Besch. etc. I, 153, Tab. V, f. 9—11. — O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 208; Monogr. etc. IV, 82. — Europe and Atlantic States of North America.
- * *fidelis* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 209; Mon. etc. IV, 83. — New York; Illinois; Canada.
- * *domestica* O. Sacken, Proc. Acad. Nat. Sc. Phil., 1859, 208; Mon. etc. IV, 84; Tab. III, f. 5, forceps. — Atlantic States and apparently the same species in Brazil.

Limnobia.

- Meigen, Syst. Besch. I, 1818; O. Sacken, Mon. etc. IV, 84.
- * *cinetipes* Say, Journ. Acad. Nat. Sc. Phil. III, 21, 4; Compl. Wr. II, 47; Wiedemann, Auss. Zw. I, 32, 15. O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 214; Mon. etc. IV, 88. — Atlantic States.
- * *hudsonica* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1861, 289; Mon. etc. IV, 91. — Slave Lake, Huds. B. Terr.
- * *immatura* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 214; Mon. etc. IV, 89. — Distr. Columbia; Wisconsin; Maine.
- * *indigena* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 215; Mon. etc. 94; Tab. III, f. 7, forceps. Atlantic States and Colorado; Canada.

- **parietina* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1861, 289; Mon. etc. IV, 93. — Trenton Falls, N. Y.; White Mts. N. H.
- **sociabilis* O. Sacken, Mon. etc. IV, 95. — Illinois.
- **solitaria* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 215; Mon. etc. IV, 90; Tab. III, f. 6, forceps. — New York, New Hampshire, Maine and far north in British America.
- **triocellata* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 216; Mon. etc. IV, 92. — Distr. Columbia, New York, Wisconsin.
- **tristigma* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 216; Mon. etc. IV, 95. — Illinois.
- **californica* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1861, 283; Mon. etc. IV, 96. — California.
- **sciophila* O. Sacken, Western Diptera, 197. — Marin and Sonoma Co., Cal.

livida Say, Journ. Acad. Phil. VI, 151; Compl. Wr. II, 349. — Mexico.

Trochobola.

O. Sacken, Mon. etc. IV, 97; 1868; *Discobola* O. Sacken, 1865.

- **argus* Say, Long's Exp. App. 358; Compl. Wr. I, 243 (*Limnobia*); Wiedemann, Auss. Zw. Ins. I, 33, 17 (*id.*); O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 217 (*id.*); Mon. etc. IV, 98. Tab. I, f. 4, wing. — Massachusetts; Maine; New York; New Jersey; Nova Scotia, Canada. (²⁷).

SECTION II. LIMNOBINA ANOMALA.

Rhamphidia.

- Meigen, Syst. Besch. VI; 1830; *Megarhina* and *Uelius* St. Fargeau, 1825; O. Sacken, Mon. IV, 103.
- **flavipes* Macquart, Dipt. Exot. 5^e Suppl. 17. Tab. I, f. 4 (wing). — O. Sacken, Monogr. etc. IV, 105. — Atlantic States.
- Rhamphidia prominens* Walker, Dipt. Saund. 435.
- Rhamphidia brevisrostris* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 222.

Elephantomyia.

- O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859; Monogr. etc. IV, 106.
- **Westwoodi* O. Sacken, Mon. etc. IV, 109, Tab. I, f. 5, wing; Tab. III, f. 8, forceps. — N. America, from Quebec to Florida.
- Elephantomyia canadensis* O. Sacken (nec Westwood), Proc. Acad. Nat. Sc. Phil. 1859, 221.

Toxorrhina.

- Loew, Linn. Entom. V, 400; 1851; O. Sacken, Mon. etc. IV, 109.
- **magna* O. Sacken, Proc. Phil. Ent. Soc. 1865, 232; Mon. etc. IV, 114. — New Jersey.

- **muliebris* O. Sacken, Proc. Phil. Ent. Soc. 1865, 233 Mon. IV, 115; see also Additions to Vol. IV at the end of Mon. Vol. III. — Princeton, Mass.; Tarrytown, N. Y.

fragilis Loew, Linn. Ent. V, 401, Tab. II, f. 16—18. — Portorico.

Dicranoptycha.

- O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859. Mon. etc. IV, 116.
- **germana* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 217; Mon. etc. IV, 117. — Trenton Falls. N. Y.
- **sobrina* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 218; Mon. IV, 118; Tab. I, f. 8, wing; Tab. III, f. 12, forceps. — Distr. Columbia; a similar species in California.
- Dicranoptycha sororecula* O. Sacken, Proc. Ac. Nat. Sc. Phil. 1859, 218.
- **nigripes* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 218; Mon. etc. IV, 119; Tab. III, f. 11, forceps. — Dalton, Georgia.

Elliptera.

Schiner, Wiener Entom. Monatsschr. VII, 222, 1863.

O. Sacken, Monogr. IV, 122

- **clausa* O. Sacken, Western Diptera, 197. — Yosemite Valley, Cal.

Antocha.

- O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859; Mon. etc. IV, 125.
- **opalizans* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 220; Mon. etc. IV, 126, Tab. III, f. 10. — Europe and N. America (from Distr. Columbia to Fort Resolution, Huds. B. Terr.)
- Antocha saxicola* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 220.

Atarba.

O. Sacken, Monogr. etc. IV, 127: 1868.

- **pieticornis* O. Sacken, Mon. etc. IV, 128, Tab. I, f. 13, wing. — Delaware; Distr. Columbia, Trenton Falls, N. Y.

Teucholabis.

- O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, Monogr. etc. IV, 129.
- **complexa* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 223: Monogr. etc. IV, 132. — Distr. Columbia, New York, Illinois.
- **chalybeiventris* Loew, Wiener Monatschr. 1861, 33. (*Elamphidion*). (About the location in this genus compare O. Sacken, Monogr. IV, 132.) — Cuba.

Diotrepha.

nov. gen.

- **mirabilis*, n. sp. see the note.⁽²⁶⁾. — Georgia; Texas; Cuba(2)

SECTION III. ERIOPTERINA.

Rhypholophus.

Kolenati, Wiener Ent. Monatschr. IV, 1860.

O. Sacken, Monogr. etc. IV, 141; *Dasyptera* Schiner 1863.

fascipennis Zetterst. Dipt. Scand. X, 3777 (*Erioptera*; description reproduced in Monogr. etc. IV, App. I, 323). — Greenland (according to Staeger's *Groenl. Antliater* in Krøjer's Tidskrift, etc. 1845, 355, 16).⁽²⁹⁾.

**holotrichus* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 227 (*Erioptera*); Monogr. etc. IV, 141. — Distr. Columbia; New York.

**innocens* O. Sacken, Mon. etc. IV, 142. — Distr. Columbia; N. Jersey.

**meigenii* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 226 (*Erioptera*); Monogr. etc. IV, 144. — United States and Canada

**monticola* O. Sacken, Monogr. etc. IV, 145. — White Mts., N. H.

**nigripilus* O. Sacken, Monogr. etc. IV, 142. — Distr. Columbia.

**nubilus* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 227 (*Erioptera*); Monogr. etc. IV, 141, Tab. I, f. 14, wing. — Distr. Columbia; New York.

**rubellus* O. Sacken, Monogr. etc. IV, 144, Tab. I, f. 15, wing. — New York; Delaware.

Erioptera.

Meigen, Illig. Magaz. II; 1803.

O. Sacken, Monogr. IV, 146.⁽³⁰⁾.

Subgenus *Erioptera* (O. Sacken, Monogr. IV, 151); *Trichosticha* Schiner 1863 (ex parte).

**chrysocoma* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 226; Monogr. etc. IV, 156. — Atlantic States and Canada (Quebec) etc.

**chlorophylla* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 226; Monogr. etc. IV, 157, Tab. I, f. 16, wing. — Atlantic States and Canada (Quebec).

**septemtrionis* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 226; Monogr. etc. IV, 155. — Northern States; also Distr. Columbia.

**straminea* O. Sacken, Monogr. etc. IV, 157. — Middle States.

**villosa* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 229; Monogr. etc. IV, 155. — Middle States.

**vespertina* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 226; Monogr. etc. IV, 157, Tab. IV, f. 20, forceps. — Distr. Columbia; Wisconsin; Florida; Canada (Quebec).

Subgenus *Acyphona* (O. Sacken, Monogr. etc. IV, 151).

**armillaris* O. Sacken, Monogr. etc. IV, 158. — Distr. Columbia; New York; Canada (Quebec).

**graphica* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 227; Monogr. etc. IV, 159. — Distr. Columbia.

- **venusta* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 227; Monogr. etc. IV, 158; Tab. I, f. 17, wing; Tab. IV, f. 16, forceps. — Atlantic States.

Subgenus Hoplolabis (O. Sacken, Monogr. etc. IV, 152).

- **armata* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 227; Monogr. etc. IV, 160; Tab. I, f. 18, wing; Tab. IV, f. 14, forceps. — Atlantic States and Canada (Quebec).
 **bipartita* O. Sacken, Western Diptera 199. — Environs of San Francisco, Cal.

Subgenus Mesocyphona (O. Sacken, Monogr. etc. IV, 152).

- **caloptera* Say, Journ. Acad. Nat. Sc. Phil. III, 17, 1; Compl. Wr. II, 44 (*E. caliptera*); Wiedemann, Auss. Zw. I, 23, 1; O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 226; Monogr. etc. IV, 161; Tab. IV, f. 15, forceps. — Atlantic States, as far West as Colorado, north to Quebec, Canada; also in Cuba.
 **parva* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 227; Monogr. etc. IV, 162. — Distr. Columbia; New Jersey.
 **duleis* O. Sacken, Western Diptera, I, 198. — Lake Tahoe, Sierra Nevada, Cal.

Subgenus Molophilus (Curtis, Brit. Entomol. 1833; O. Sacken, Monogr. etc. IV, 153; *Erioptera* Schiner 1863).

- **forceipula* O. Sacken, Monogr. etc. IV, 163. — New Jersey (a similar species in California see Western Diptera, 200).
 **hirtipennis* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 228; Monogr. etc. IV, 163. — Distr. Columbia; New Jersey.
 **pubipennis* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 228; Monogr. etc. IV, 162. — Distr. Columbia.
 **ursina* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 228; Monogr. etc. IV, 164. — Distr. Columbia; Maryland; (a similar species in California, see Western Dipt. 200.)

Trimicra.

O. Sacken, Proc. Acad. Nat. Sc. Phil. 1861; Monogr. etc. IV, 165.

- **anomala* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1861, 290; Monogr. etc. IV, 167; Tab. II, 1, wing — Distr. Columbia; New York; Rhode Island; also in California, see Western Diptera, 200; Oaxaca, Mexico (Coll. Bellardi).

Chionea.

Dalman, K. Vetensk, Acad. Handl. 1816; O. Sacken, Monogr. IV, 168.

scita Walker, List etc. I, 82. — North America.

- **valga* Harris, Ins. Inj. to Veget. etc. 3^d ed. 601 fig. 260. — Massachusetts.
Chionea aspera Walker, List, etc. I, 82. — Huds. B. Terr.

Symplecta.

Meigen, Syst. Besch. VI, 1830; O. Sacken, Monogr. IV, 170.

- **punctipennis* Meigen, Eur. Zw. Ins. I, 147. Tab. V, f. 7. (*Limnobia*); id. l. c. VI, 283 (*Symplecta*); — O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 228; Monogr. etc. IV, 171; Tab. I, f. 20, wing; Tab. IV, f. 21, forceps. — Atlantic States, including Colorado; Canada (Quebec); also in California and Chili; see Western Diptera 200. ⁽³¹⁾

Symplecta cana Walker, List etc. I, 48.

Gnophomyia.

O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859; Monogr. etc. IV, 172.

- **inertiosa* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 224; Monogr. etc. IV, 174. — Florida.

Limnobia nigricola Walker, Trans. Entom. Soc. Lond. V, N. S., Pt. VII, 66.

- **tristissima* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 224; Monogr. etc. IV, 175; Tab. II, f. 5, wing; Tab. IV, f. 19, forceps and ovipositor. — Atlantic States and Canada.

Goniomyia.

Gonomyia Megerle, in Meigen's Syst. Besch. I, 1818;

O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859; Monographs, etc. IV, 176, name amended in *Gonomyia*; compare also Additions, at the end of Monographs, Vol. III. ⁽³²⁾

- **blanda* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 231; Mon. etc. IV, 182; Tab. IV, f. 17, forceps. — Distr. Columbia; New York; South Carolina.

- **cognatella* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 230; Mon. etc. IV, 181; Tab. IV, f. 18, forceps. — Distr. Columbia.

- **manea* O. Sacken, Mon. etc. IV, 178. — N. Jersey.

- **subeiverea* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 231; Mon. etc. IV, 181; Tab. II, f. 4, wing. — Distr. Columbia; New York; Canada (Quebec.)

- **sulphurella* O. Sacken, Proc. Ac. N. Sc. Phil. 1859, 230; Mon. etc. IV, 180; Tab. II, f. 2, wing. — Distr. Columbia; New York; Canada (Quebec.)

[About the occurrence of this genus in California, see my Western Diptera.]

Empeda.

O. Sacken, Mon. etc. IV, 183, 1868.

- **stigmatica* O. Sacken, Mon. etc. IV, 184. — New York.

Cryptolabis.

O. Sacken, Proc. Acad. N. Sc. Phil.; 1859; Mon. etc. IV, 185.

- **paradoxa* O. Sacken Proc. Acad. Nat. Sc. Phil. 1859, 225; Mon. etc. IV, 186, Tab. II, f. 11, wing; Tab. III, f. 3, forceps and ovipositor. — Virginia.

Cladura.

- O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859; Mon. etc. IV, 187.
 **flavoferruginea* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 229; Mon. etc. IV, 188; Tab. IV, f. 22, forceps. — Distr. Columbia.
 **indivisa* O. Sacken, Proc. Ac. N. Sc. Phil. 1861, 291; Mon. etc. IV, 189 (Wing figured on p. 34). — New York; Massachusetts; Canada (Quebec).

Sigmatomera.

- O. Sacken, Mon. etc. IV, 137; 1863.
flavipennis O. Sacken, Monogr. etc. Vol. III (in the Additions and Corrections). — Mexico.

SECTION IV. LIMNOPHILINA.

Epiphragma.

- O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859; Mon. etc. IV, 193.
 **fascipennis* Say, Journ. Acad. Nat. Sc. Phil. III, 19, 1; Compl. Wr. II, 45 (*Limnobia*); Wiedemann, Auss. Zw. I, 31, 14 (*id*) — O. Sacken, Mon. etc. IV, 194. — Atlantic States; Canada (Quebec).
Epiphragma parvina O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 239.
 **solatrix* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 238; Mon. etc. IV, 195; Tab. II, f. 8, wing. — Distr. Columbia.

Limnophila.

- Macquart, Hist. Nat. Dipt. I; 1834.
 O. Sacken, Monogr. IV, 196.
 **adusta* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 235; Mon. etc. IV, 215. — Atlantic States and Canada (Quebec).
 **aprilina* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 235; Mon. etc. IV, 223; Tab. IV, f. 23, forceps. — Distr. Columbia; White Mts., N. H.
 **areolata* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 237; Mon. etc. IV, 214. — New York; Maryland; Distr. Columbia.
 **brevifurea* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 237; Mon. etc. IV, 221. — Distr. Columbia; Quebec (Canada).
 **contempta* O. Sacken, Mon. etc. IV, 218. — Middle States.
carbonaria Macquart, Dipt. Exot. I, 1, 66. (Description reproduced in Mon. IV. Appendix.) — Carolina.
 **cubitalis* O. Sacken, Mon. etc. IV, 229. — Virginia; Ohio.
 **fasciolata* O. Sacken, Mon. etc. IV, 206. — Massachusetts.
Limnophila fasciata O. Sacken (nec Schummel), Proc. Acad. Nat. Sc. Phil. 1859, 234.
 **fratria* O. Sacken, Mon. etc. IV, 220. — Northern States.
 **fuscovaria* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 240; Mon. etc. IV, 225. — Atlantic States and Canada (Quebec).

- gracilis* Wiedemann, Auss. Zw. I, 28, 8 (*Limnobia*; description reproduced in Monogr. etc. IV, Appendix). — Pennsylvania.
- **imbecilla* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 237; Mon. etc. IV, 213. — Maryland; New York.
- **inornata* O. Sacken, Mon. etc. IV, 20; see also Additions at the end of Mon. Vol. III. — Massachusetts; Tarrytown, N. York.
- **lenta* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 241; Mon. etc. IV, 231. — Middle States.
- **luteipennis* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 236; Mon. etc. 217; Tab. II, f. 10, wing; Tab. IV, f. 25, forceps. — United States and Canada (Quebec); California.
- (?) *Limnobia biterminata* Walker, Dipt. Saund. 437.
- **macrocera* Say, Journ. Acad. Nat. Sc. Phil. III, 20, 2 (*Limnobia*); Compl. Wr. II, 46; Wiedemann, Auss. Zw. I, 34, 19. (*id.*); — Macquart, Hist. Nat. Dipt. I, 108, 2 (*Cylindrotoma*); — O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 234 (*Lasiomastix*); Mon. etc. IV, 204. — United States and Canada (Quebec).
- **montana* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 240 (*Dactylolabis*); Mon. etc. IV, 227; Tab. II, f. 7, wing; Tab. IV, fig 26, forceps. — United States and Canada (Quebec); California.
- **munda* O. Sacken, Monogr. etc. IV, 226. — White Mts. N. H.; Canada (Quebec).
- **niveitarsis* O. Sacken, Mon. etc. IV, 209. — Delaware; Maryland.
- **poetica* O. Sacken, Mon. etc. IV, 207. — Massachusetts.
- **quadrata* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 241; Mon. etc. 230, Tab II, f. 9, wing. — United States and Canada (Quebec.)
- **recondita* O. Sacken, Mon. etc. IV, 212. — New York; Pennsylvania; Georgia.
- **rufibasis* O. Sacken, Proc. Ac. N. Sc. Phil. 1859, 239, (*Prionolabis*); Mon. etc. IV, 225; Tab. II, f. 3, wing; Tab. IV, f. 27, forceps. — Distr. Columbia; New York; Mass.
- **tenuicornis* O. Sacken, Mon. etc. IV, 208. — White Mts., N. H.
- **tenuipes* Say, Journ. Acad. Nat. Sc. Phil. III, 21, 3; Compl. Wr. II, 46 (*Limnobia*); O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 235; Mon. etc. IV, 210. — U. States; Canada (Quebec).
- Limnobia humeralis* Wiedemann (non Say), Auss. Zw. I, 34. (³³).
- **toxoneura* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 236; Mon. etc. IV, 213. — N. York.
- **ultima* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 238, Mon. etc. IV, 222; Tab. IV, f. 24, forceps. — Distr. Columbia; Maine; Canada (Quebec) and farther North, as far as Alaska.
- **unica* O. Sacken, Mon. IV, 205. — White Mts., N. H.
- **damula* O. Sacken, Western Diptera, 201. — San Bernardino, Cal.
- nebulosa* Bellardi, Saggio etc. I, 6; Tab. I, f. 4, wing (*Tipula*). — Mexico.
- undulata* Bellardi, Saggio etc. Append., 3, Tab. I, f. 2. — Mexico.

Observation. *L. tenuipes*, *luteipennis*, *aprilina*, *montana*, *munda* (?), *adusta* (?), or species exceedingly like them, also occur in California, see my Western Dipt. 201.

Phyllolabis.

O. Sacken, Western Dipt. 202; 1877.

**claviger* O. Sacken, Western Dipt. 203. — California.

**encausta* O. Sacken, Western Dipt. 204. — California.

Ulomorpha.

O. Sacken, Mon. etc. IV, 232; 1868.

**pilosella* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 342; Mon. etc. IV, 233 (*Limnophila*). — Trenton Falls, N. York.

Trichocera.

Meigen, in Illiger's Magaz., 1803; O. Sacken, Monogr. IV, 233.

**bimacula* Walker, List, etc. I, 84. — Nova Scotia.

brumalis Fitch, Winter Insects, etc. (1848). — New York.

gracilis Walker, List, etc. I, 84. — New York Factory.

hiemalis (De Geer) Zetterstedt, Dipt. Scand. X, 4041; Holmgren, Ins. Nordgroenl. — Northern Greenland.

maculipennis Meigen, etc., Staeger, Groenl. Antliater. — Europe, Greenland.

**regulationis* Lin., O. Fabricius, Fauna Groenl. 202, 157 (*Tipula*). — Europe and North America.

scutellata Say, Long's Exp. App. 360; Compl. Wr. I, 244; Wiedemann, Auss. Zw. I, 60, 1. — Falls of Kakabikha, beyond Lake Superior (Say).

**trichoptera* O. Sacken, Western Dipt. 204. — Marin Co., Calif.

Observation. *Gynoplistia annulata* Westwood, Lond. and Edinb. Philos. Mag. 1835, from Newfoundland, has never been found in North America since. Compare about it, Mon. IV, 42. Its description is reproduced in the Appendix to the same volume. *Limnobia ignobilis* and *turpis* Walker, Dipt. Saund. are not recognizable in the descriptions; I did not see them in the Brit. Mus. Compare about them my remarks in Monogr. etc. IV, 40, 41.

Limnobia stupens Walker, Trans. Ent. Soc. N. Ser. V, 333 (from Mexico), seems to belong either to the *Limnophilina* or the *Amalopina*.

SECTION V. ANISOMERINA.

Anisomera. ⁽³⁴⁾

Meigen, Syst. Besch. I; 1818; O. Sacken, Mon. etc. IV, 242.

Hezatomia Latreille; 1809. *Nematocera*, Meigen; 1818.

**megacera* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 242; Mon. etc. IV, 243; Tab. II, f. 12, wing. — Distr. Columbia; Maryland.

Eriocera.

- Macquart, Dipt. Exot. I, 1, 74; 1838; O. Sacken, Monogr. etc. IV, 244.
- **brachycera* O. Sacken, Western Dipt. 204. — White Mts. N. H.
- **fuliginosa* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 243; Monogr. etc. IV, 255; Tab. IV, f. 28, forceps. — Virginia; Distr. Columbia.
- **longicornis* Walker, List, etc. I, 82 (*Limnobia*); O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 245 (*Arrhenica*); Monogr. etc. IV, 253. — New York; Maine; Massachusetts; Illinois; Canada.
- **spinosa* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 244 (*Arrhenica*); Monogr. etc. IV, 252; Tab. IV, f. 29, forceps. — New York; Massachusetts. **NB.** The description of the female, given l. c. belongs to *E. brachycera*; see O. Sacken, Western Dipt. 205.
- **Wilsonii* O. Sacken, Monogr. etc. IV, 255. — Delaware.
- **californica* O. Sacken, Western Diptera, 204. — California. ⁽³⁵⁾.

Observation. In Mr. Bellardi's mexican collection, I saw four species of *Eriocera*, all with four posterior cells and short antennae in both sexes.

Penthoptera.

- Schiner, Wiener Ent. Mon. VI; 1863. O. Sacken, Monogr. IV, 256.
- **albitarsis* O. Sacken, Monogr. etc. IV, 257. — Pennsylvania; Connecticut.

SECTION VI. AMALOPINA.**Amalopsis.**

- Haliday, in Walker's Ins. Brit. Dipt. III, XV; 1856; O. Sacken, Monogr. etc. IV, 260; 1868; *Crunqbia* Kolenati 1860.
- **auripennis* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 247; Monogr. etc. IV, 268. — Massachusetts.
- **calcar* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 247; Monogr. etc. IV, 268; Tab. II, f. 14, wing. — Wisconsin; White Mts., N. H.; Canada (Quebec).
- **hyperborea* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1861, 292; Monogr. etc. IV, 269. — Labrador.
- **inconstans* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 247; Monogr. etc. IV, 266; Tab. II, f. 15, wing; Tab. IV, f. 30, forceps. — Atlantic States and Canada (Quebec).
- **vernalis* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1861, 291; Monogr. etc. IV, 270. — White Mts., N. H.; Distr. Columbia.
- [*Amalopsis calcar*, or a closely resembling species, and *Amalopsis* nov. sp. occur in California; see O. Sacken, Western Dipt. 205.]

Pedicia.

- Latreille, Genera etc. Vol. IV; 1809; O. Sacken, Monogr. IV, 273.
- **albivitta* Walker, List., etc. I, 37; O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 248; Monogr. etc. IV, 273. — New York; Connecticut; Massachusetts (a chiefly northern species).

Pedicia contermina Walker, List, etc. I, 38. — Nova Scotia. (I believe this to be a mere variety.)

(The *Tipula rosea* of O. Fabricius, Fauna Groenl. 200, 156 is not *Pedicia rosea* Lin., but, according to Schiödte, in Berl. Ent. Zeitschr. 1859, 152, *Tipula nodulicornis* Zetterstedt.)

**obtusa* O. Sacken, Western Dipt. 205. — Marin Co., Cal.

Ula.

Haliday, Entom. Magaz. I; 1833; O. Sacken, Monogr. etc. IV, 274.

**elegans* O. Sacken, Monogr. etc. IV, 276. — White Mts., N. H.

**pauper* O. Sacken, Monogr. etc. IV, 277. — Distr. Columbia.

Ula pilosa O. Sacken (non Schummel) Proc. Acad. Nat. Sc. Phil. 1859, 251.

Dicranota.

Zetterstedt, Ins. Lappon. 1840; O. Sacken, Monogr. etc. IV, 278.

**rivularis* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 249; Monogr. etc. IV, 281; Tab. II, f. 16, wing. — Distr. Columbia.

**eucera* O. Sacken, Monogr. etc. IV, 281. — Distr. Columbia.

Plectromyia.

O. Sacken, Monogr. etc. IV, 282; 1868.

**modesta* O. Sacken, Monogr. etc. 284; Tab. II, f. 18, wing; — White Mts., N. H.

Rhaphidolabis.

O. Sacken, Monogr. etc. IV, 284; 1868.

**tenuipes* O. Sacken, Monogr. etc. IV, 287; Tab. II, f. 17, wing. — Maryland; New York.

**flaveola* O. Sacken, Monogr. etc. IV, 288. — Maryland; Massachusetts. [A *Rhaphidolabis*, resembling *R. tenuipes* occurs in California; see my Western Dipt.]

SECTION VII. CYLINDROTOMINA.

Cylindrotoma.

Macquart, H. N. Dipt. 1; 1834.

O. Sacken, Monogr. etc. IV, 296.

**americana* O. Sacken, Proc. Ent. Soc. Phil. 1865, 236; Monogr. IV, 299. — White Mts., N. H.

**nodicornis* O. Sacken, Proc. Ent. Soc. Phil. 1865, 239 (*Triogma*); Mon. etc. IV, 301; Tab. II, f. 7, wing. (*Liogma*, nov. gen. is proposed for it in Monogr. IV, 298.) — Northern States, not rare, Canada (Quebec).

Triogma.

Schiner, Wien. Ent. Mon. VII; 1863; O. Sacken, Monogr. etc. IV, 303.

**exsculpta* O. Sacken, Proc. Ent. Soc. Phil. 1865, 239; Monogr. etc. IV, 304. — Pennsylvania.

Phalacroceræ.

Schiner, Wiener Ent. Mon VII; 1863; O. Sacken, Monogr. etc. IV, 305.

* *tipulina* O. Sacken, Proc. Ent. Soc. Phil. 1865, 241; Monogr. etc. IV, 308. — White Mts., N. H.

SECTION VIII. PTYCHOPTERINA.**Ptychoptera.**

Meigen, Illiger's Magaz., 1803; O. Sacken, Monogr. IV, 309. (³⁶).

quadrifasciata Say, Long's Exp. App. 359; Compl. Wr. I, 244; Wiedemann, Auss. Zw. I, 60, 2. (Description reproduced in Monogr. Vol. IV. Appendix) — Pennsylvania

* *rufocincta* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 252; Monogr. etc. IV, 313; Tab. II, f. 19, wing. — Atlantic States and Canada (Quebec).

* *lenis* O. Sacken, Western Dipt. 206. — Yosemite, Cal.; Georgetown, Colorado.

(?) *Ptychoptera metallica* Walker, List, etc. I, 80; description reproduced in Monogr. IV, Appendix. — Hudson Bay's Territory. (³⁷).

Bittacomorpha.

Westwood, Lond. and Edinb. Philos. Magaz. VI, 281; 1835.

O. Sacken, Monogr. etc. IV; 313.

* *clavipes* Fabricius, Spec. Ins. II, 404, 19; Mant. Ins. II, 323, 21; Ent. Syst. IV, 239, 25 (*Tipula*); Syst. Antliat. 22, 4 (*Ptychoptero*); Wiedemann, Auss. Zw. I, 59 (*id.*); Westwood, Lond. and Edinb. Phil. Magaz. 1835, 281; O. Sacken, Monogr. etc. IV, 315; Tab. II, f. 20, wing; Tab. IV, f. 31, forceps. — From Newfoundland to Florida and Texas. — I have also seen specimens from Oregon (Collection of Mr. Henry Edwards in San Francisco); from Clear Creek Cañon, Colorado (Coll. of J. D. Putnam, Davenport, Iowa), but I have not compared them with specimens from the Atlantic States. Specimens from California in Mr. Verrall's collection in London have a shining thorax and a shorter submarginal cell; they may belong to a different species. Two specimens from Brazil, in the Vienna Museum, do not differ from the typical ones. Still, the occurrence in Brazil of this insect, as well as of *Pyrgota undata*, requires confirmation.

Idioplasta.

Protoplasa O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859; Monogr. etc. IV, 316. (³⁸).

* *Fitchii* O. Sacken, Proc. Acad. Nat. Sc. Phil. 1859, 252 (*Protoplasa*); Monogr. etc. IV, 319 (*id.*); figure of wing, on p. 317. — New York; Georgia.

* *vipio* O. Sacken, Western Diptera, 208 (*Protoplasa*). — San Mateo, Cal.

SECTION IX. TIPULINA.

Longurio.

Loew, Centur. VIII, 2; 1869.

**testaceus* Loew, Centur. VIII, 2. — Massachusetts.

(?) *longipennis* Macquart, Dipt. Exot. I, 57, 9 (*Tipula*); Bigot, R. de la Sagra, etc. 786 (*id.*). — Cuba.

Molorusia.

Loew, Centur. IV, 2; 1863.

**rubiginosa* Loew, Centur. IV, 1. — California (not rare about S. Francisco).

Tipula.

Linné, Anim. per Succiam observata; 1736. (³⁹).

**abdominalis* Say, J. Acad. Phil. III, 18; Compl. Wr. II, 45 (*Ctenophora*); Wiedemann, Auss. Zw. I, 37 (*id.*). — Northern Atlantic States and Canada (seems common about Quebec; also received from Kansas, Wisconsin and Kentucky).

Tipula albilatus Walker, List, I, 65 (!).

**angulata* Loew, Centur. V, 22. — Massachusetts.

**angustipennis* Loew, Centur. IV, 19. — Massachusetts, Huds. B. Terr.

(?) *Tipula glomerata* Walker, List, etc. I, 70. — North America. (⁴²).

annulicornis Say, J. Acad. Phil. VI, 151; Compl. Wr. II, 350. — Indiana.

**apicalis* Loew, Centur. IV, 2. — Maine; Dobb's Ferry, N. Y.

**appendiculata* Loew, Centur. IV, 20. — Saskatchewan.

**arctica* Curtis, Ross's Exp. LXXVII, Tab. A, f. 15; Holmgren, Ins. Nordgroenl. 105. — Greenland, Arctic America.

Tipula rosea, O. Fabr. (non Linné), Fauna Groenl., 156 (Synonymy by Schiödte, Berl. Ent. Z. 1859, 152).

Tipula nodulicornis Zetterstedt, Ins. Lapp. 841, 8; Staeger, Groenl. Antliater 355; Zetterstedt, Dipt. Scand. X, 3934 [Schiödte]. (¹⁰). —

**halioptera* Loew, Centur. IV, 15. — English River, H. B. T.

**bella* Loew, Centur. IV, 29. — Connecticut, Massachusetts, New York, Canada.

(?) *Tipula furca* Walker, List, etc. I, 70. — North America. (⁴²).

**Besselsi* O. Sacken, Proc. Boston Soc. Nat. Hist. Decemb. 6, 1876. — Polaris Bay, Lat. 82.

borealis Walker, List, etc. I, 66. — Nova Scotia.

**caloptera* Loew, Centur. IV, 30. — Red River of the North; Massachusetts.

**canadensis* Loew, Centur. V, 19. — Huds. B. T.

**centralis* Loew, Centur. V, 21. — Huds. B. T.

**cincta* Loew, Centur. IV, 24. — Distr. Columbia; White Mts., N. H.

**costalis* Say, J. Acad. Phil., III. 23, 2; Compl. Wr. II, 48; Wiedemann, Auss. Zw. I, 51, 17. — Middle and Northern States; Canada.

- **cunctans* Say, J. Acad. Phil. III, 23, 1; Compl. Wr. II, 48; Wiedemann, Auss. Zw. I. 45, 8. — Pennsylvania.
Tipula casta Loew, Centur. IV, 25. ⁽⁴¹⁾.
- **discolor* Loew, Centur. IV, 12. — Massachusetts.
disjuncta Walker, Dipt. Saunders. 442. — United States.
- **dejecta* Walker, Dipt. Saunders. 442. — Atlantic States.
dorsimacula Walker, List. etc. I, 69. — Nova Scotia.
duplex Walker, List, etc. I, 66. — Nova Scotia.
- **eluta* Loew, Centur. IV, 27. — Distr. Columbia.
- **fasciata* Loew, Centur. IV, 6. — Sharon Springs, N. Y; Pallissades, N. J.
filipes Walker, List, etc. I, 65. — Florida.
- **flavicans* Fabricius, Syst. Antl. 24, 5 (*glavescens*, in *erratis flavicans*); Wiedemann, Dipt. Exot. I, 25, 5; Auss. Zw. I, 48, 13. — United States and Canada.
- **fragilis* Loew, Centur. IV, 7. — Maine.
- **fraterna* Loew, Centur. V, 14. — Distr. Columbia.
frigida Walker, List, etc. I, 68. — Nova Scotia.
- **fuliginosa* Say, J. Acad. Phil. III, 18, 1; Compl. Wr. II, 44 (*Ctenophora*); Wiedemann, Auss. Zw. I, 40, 5. (*id.*). — Middle and Northern States. ⁽⁴²⁾.
- **grata* Loew, Centur. IV, 11. — Distr. Columbia, New York.
- **hebes* Loew, IV, 18. — Connecticut, Illinois, Maine.
- **infuscata* Loew, Centur. IV, 26. — New York; Distr. Columbia.
- **ignobilis* Loew, Centur. IV, 9. — Distr. Columbia; White Mts., N. H.
- **latipennis* Loew, Centur. V, 20. — White Mts., N. H.; Canada.
- **longiventris* Loew, Centur. IV, 5. — Illinois; Maine; Lake Winnipeg.
- **macrolabis* Loew, Centur. V, 17. — Huds. B. Terr.
maculipennis Wiedemann, Auss. Zw. I, 46, 9; — Northern States; Nova Scotia (Walker, List, etc. I, 67).
Tipula maculatipennis, Say, Long's Exp. App., 359; Compl. Wr. I, 243 (name modified by Wiedemann).
- **pallida* Loew, Centur. IV, 16. — Massachusetts.
platymera Walker, Dipt. Saund. 441. — Canada.
pratorum Kirby, Fauna Bor. Amer. Ins. 310. — Arctic America.
puncticornis Macquart, Dipt. Exot. 4^e Suppl. 15, 22; Tab. I, f. 6. — North-America.
resurgens Walker, List, etc. I, 67. — Newfoundland.
simulata Walker, Dipt. Saund. 441. — Canada.
- **septentrionalis* Loew, Centur. IV, 4. — Labrador.
- **serrulata* Loew, Centur. V, 18. — Fort Resolution, Huds. B. Terr.
- **serta* Loew, Centur. IV, 14. — Lake Winnipeg, Huds. B. Terr.; Massachusetts; Canada.
- **speciosa* Loew, Centur. IV, 22. — Illinois, Distr. Columbia.
- **strepens* Loew, Centur. IV, 28. — New York; White Mts., N. H.
- **subfasciata* Loew, Centur. IV, 13. — English River, Huds. B. Terr.
- **submaculata* Loew, Centur. IV, 23. — Massachusetts; Western N. York.
- **suspecta* Loew, Centur. IV, 8. — Distr. Columbia

- **tephrocephala* Loew, Centur. V, 23. — White Mts., N. Hampshire; New Jersey.
- **ternaria* Loew, Centur. V, 15. — Huds. B. Terr.
- **tessellata* Loew, Centur. IV, 3. — Labrador.
- **tricolor* Fabricius, Ent. Syst. IV, 235, 9; Syst. Antl. 26, 13; Wiedemann, Dipt. Exot. I, 22, 1; Auss. Zw. I, 44, 6. — Atlantic States.
- triplex* Walker, List, etc. I, 66. — Nova Scotia.
- **trivittata* Say, J. Acad. Phil. III, 26, 6; Compl. Wr. II, 50; Wiedemann, Auss. Zw. I, 42, 4. — Atlantic States
- truncorum* Meigen etc.; Gerstaecker, Die 2^{te} deutsche Nordpolfahrt etc. — Europe and East Greenland.
- **umbrosa* Loew, Centur. IV, 31. — Louisiana.
- **valida* Loew, Centur. IV, 21. — Massachusetts, Illinois, New York.
- **versicolor* Loew, Centur. IV, 17. — Illinois.
- **beatula* O. Sacken, Western Diptera, 209. — California (Marin Co., not rare).
- **fallax* Loew, Centur. IV, 10. — California.
- **pubera* Loew, Centur. V, 16. — California (Marin and Sonoma Co.).
- **praeclisa* Loew, Centur. X, 2; O. Sacken, Western Diptera, 209. — California, common.
- **spernax* O. Sacken, Western Diptera, 210. — Sierra Nevada, Calif.
- associans* Walker, Trans. Ent. Soc. Nat. Sc. V, 333. — Mexico.
- Craverii* Bellardi, Saggio, etc. I, 7; Tab. I, f. 1 (wing). — Mexico. (Schiner, Novara etc. 35, considers this species a synonym of *Tip. obliquefasciata* Macquart, Dipt. Exot. Suppl. I, 15, 15, Tab. I, f. 10.); it is also very like *T. pubera* Loew, from California.
- dispellens* Walker, Trans. Ent. Soc. N. S. V, 333. — Mexico.
- Edwardsii* Bellardi, Saggio, etc. I, 8; Tab. I, f. 2 (wing). — Mexico.
- quadrimeauiata* Bellardi, Saggio, etc. I, 9; Tab. I, f. 3 (wing). — Mexico.

Observation. *Tipula atra* Linné, in O. Fabricius, Fauna Groenl. is an *Eupis*.

Tip. pennicornis Linné, ibid. perhaps *Ctenophora*?

Tipula monoplera Linné, ibid. perhaps *Sciara*?

Pachyrrhina.

Pachyrrhina, Macquart, Hist. Nat. Dipt. I, 88, 1834.

- **abbreviata* Loew, Centur. IV, 36. — Mississippi.
- **altissima* O. Sacken, Western Diptera, 210. — Pike's Peak, Col.; Taos Peak, N. M., above tree-line.
- **collaris* Say, J. Acad. Phil. III, 23, 2; Wiedemann, Auss. Zw. I, 51, 17. — Massachusetts; Pennsylvania; Distr. Columbia.
- **eucera* Loew, Centur. IV, 39. — Distr. Columbia.
- **ferruginea* Fabricius, Syst. Antl. 28, 19 (*Tipula*); Wiedemann, Dipt. Exot. I, 28, 9; Auss. Zw. I, 53, 21 (*id.*); Macquart, Dipt. Exot. 4^e Suppl., 13; Tab. I, f. 3. — United States and British Possessions, common; California, see O. Sacken, Western Dipt., 211.

- * *gracilicornis* Loew, Centur. V, 32. — Western New York.
- * *incurva* Loew, Centur. IV, 32. — Atlantic States.
(?) *Tipula alterna* Walker, List, etc. I, 72. — Nova Scotia. (42).
- * *lugens* Loew, Centur. V, 26. — White Mts., N. H.; Canada.
- * *macrocera* Say, J. Acad. Phil. III, 24, 3; Compl. Wr. II, 48; Wiedemann, Auss. Zw. I, 52, 18; Macquart, Hist. Nat. Dipt. I, 108, 2. — Atlantic States.
- * *nobilis* Loew, Centur. V, 24. — White Mts., N. H.
- * *occipitalis* Loew, Centur. V, 30. — Huds. B. Terr. (Yukon River.)
- * *pedunculata* Loew, Centur. IV, 33. — Saskatchewan; Illinois; Catskill, N. Y.
- * *polymera* Loew, Centur. IV, 40. — Illinois; Ohio.
- * *punctum* Loew, Centur. IV, 34. — Illinois; Maine.
- * *sodalis* Loew, Centur. V, 29. — Connecticut
- * *suturalis* Loew, Centur. IV, 37. — Georgia, Florida.
- * *tenuis* Loew, Centur. IV, 41. — Sharon Springs, N. Y.; Virginia.
- * *unifasciata* Loew, Centur. IV, 35. — Middle States.
- * *unimaculata* Loew, Centur. V, 28. — New York; Illinois.
- * *virescens* Loew, Centur. V, 25. — Distr. Columbia (Lw.); New Jersey.
- * *vittula* Loew, Centur. V, 27. — Huds. B. Terr.
- * *xanthostigma* Loew, Centur. V, 31. — Illinois.

affinis Bellardi, Saggio, etc. I, 10. (*Tipula*). — Mexico.

* *circumscripta* Loew, Centur. IV, 38. — Cuba.

mexicana Macquart, Dipt. Exot. Suppl. 1, 12, 8. — Mexico.

nigrolutea Bellardi, Saggio, etc. I, 11 (*Tipula*); Walker, Trans. Ent. Soc. Nat. Sc. V, 343. — Mexico.

proxima Bellardi, Saggio, etc. I, 9 (*Tipula*). — Mexico.

quadrilineata Macquart, Dipt. Exot. I, 1, 50. — Mexico.

Stygeropsis.

Loew, Centur. IV, 42, 1863; *Prionocera* Loew, Stett. Ent. Z. 170; 1844.

* *dimidiata* Loew, Centur. VI, 2. — Huds. B. Terr.

* *fuscipennis* Loew, Centur. VI, 3. — Illinois.

* *sordida* Loew, Centur. IV, 42. — Lake Winnipeg.

Parrii Kirby, Suppl. to App. to Capt. Parry's first Voy. 1824 (*Ctenophora*). — Arctic America.

Dolichopeza.

Curtis, British Entomology, 62, 1825. Meigen, System. Besch. VI, 1830, p. 283, Tab. 65, f. 10, 11 (on the plate, it is called *Leptina*).

* *annulata* Say, Journ. Acad. Phil. VI, 151 (*Tipula*); Compl. Wr. II, 350; Wiedemann, Auss. Zw. I, 54, 22 (*id.*). — Pennsylvania (Say); Middle States.

Observation. I place *Tip. annulata* Say provisionally in this genus, to which it is closely allied, although, in some respects, it is different. It has a discal cell; the forceps of the male has

a different structure etc. One or two other species, as yet undescribed, occur in the United States, which are still more like the European *D. sylvicola*, although they also have a discal cell.

Ctenophora. (⁴⁴).

Meigen, Illiger's Magaz. II, 263; 1803.

- **apicata* O. Sacken, Proc. Ent. Soc. Phil. 1864, 46. — New Hampshire.
- **dorsalis* Walker, List, etc. I, 76. — Newfoundland.
- **frontalis* O. Sacken, Proc. Ent. Soc. Phil. 1864, 48. — Massachusetts.
(?) *Ctenophora succedens* Walker, Dipt. Saund., 448. — Canada.
- **funipennis* O. Sacken, Proc. Ent. Soc. Phil. 1864, 47. — Virginia.
- **nubecula* O. Sacken, Proc. Ent. Soc. Phil. 1864, 45. — Illinois.
- **topazina* O. Sacken, Proc. Ent. Soc. Phil. 1864, 47. — Virginia.
- **angustipennis* Loew, Centur. X, 3; O. Sacken, Western Diptera, 211. — California (among the redwoods in the Coast-Range, not rare).

Observation. For *Ptilogyna fuliginosa* Macquart, see the note. (⁴⁵).

FAMILY DIXIDAE.

Dixa.

Meigen, Syst. Besch. I, 216; 1818.

- **centralis* Loew, Centur. III, 3. — New York
(?) *Dixa nova* Walker, List, etc. I, 85. — New York Factory.
- **clavata* Loew, Centur. VIII, 1. — Massachusetts.
- **fusca* Loew, Centur. III, 5. — New York.
- **marginata* Loew, Centur. III, 1. — Distr. Columbia.
- **notata* Loew, Centur. III, 4. — Maryland.
- **terna* Loew, Centur. III, 2. — New York.
(?) *Dixa recens* Walker, List, etc. I, 85. — New York Factory.
- **venosa* Loew, Centur. X, 1. — Texas.

Observation. About an undescribed *Dixa* from California, compare O. Sacken, Western Diptera, 196.

FAMILY RHYPHIDAE.

Rhyphus.

Latreille, Hist. Nat. etc. XIV, 291; 1804.

- **alternatus* Say, J. Acad. Phil. III, 27, 2; Compl. Wr. II, 51; Wiedemann, Auss. Zw. I, 82, 1. — Atlantic States.
- **fenestralis* Scopoli; Meigen, Syst. Besch. I, 323. — Europe and North America (Loew, Sillim. Journ. I. c.).
- **punctatus* Meigen, etc. — Europe and North America (Loew, Sillim. Journ. I. c.).
Rhyphus marginatus Say, J. Acad. Phil. III, 27, 1; Compl. Wr. II, 50; Wiedem. Auss. Zw. I, 82, 2 (Loew, Sillim. Journ. N. Ser. XXXVII, 317).

scalaris Wiedemann, Auss. Zw. II, 618, 8. — Georgia.

taeniatus Bellardi, Saggio, etc. App. 5, f. 15. — Mexico.

FAMILY XYLOPHAGIDAE.

Rhachicerus.

Rhachicerus, Haliday, in Walker, List, etc. V, 103; 1854.

**fulvicollis* Haliday, Walker, List, etc. I, 124; V, 104. — Georgia.

**obscuripennis* Loew, Centur. III, 6. — Illinois; Detroit, Mich.

**honestus* O. Sacken, Western Diptera, 211. — California.

**nigripalpus* Loew, Berl. Ent. Z. 1874, 379. — Mexico.

**varipes* Loew, Centur. III, 7. — Cuba.

Xylophagus.

Meigen, in Illiger's Magaz. II, 266; 1803.

**abdominalis* Loew, Centur. IX, 64. — Texas

**fasciatus* Walker, List, etc. I, 128. — Huds. B. Terr.

**longicornis* Loew, Centur. IX, 62. — Massachusetts.

**lugens* Loew, Centur. III, 8. — Illinois; Pennsylvania; White Mts., N. H.

persequus Walker, Dipt. Saund., 1. — North America.

reflectens Walker, List, etc. I, 12. — New York.

**rufipes* Loew, Centur. IX, 63. — Massachusetts; Canada.

triangularis Say, Journ. Acad. Phil. III, 30; Compl. Wr. II, 52;

Wiedemann, Auss. Zw. I, 85, 2. — Missouri. (Macquart, Dipt.

Exot. I, 1, 171, suspects that this is a *Subula*.)

Subula.

Meigen, Syst. Besch. II, 15; 1820; Macquart, H. N. Dipt.

**americana* Wiedemann, Dipt. Exot. I, 51, 1; Auss. Zw. I, 84, 1 (*Xylophagus*). — Distr. Columbia; Illinois.

Subula tenthredinoides v. d. Wulp, Tijdschr. voor Entom. 2^d Ser. II, 132; Tab. III, f. 5—7. — Wisconsin [„Is but a dark variety of *S. americana*“; Loew, Zeitschr. f. Ges. Naturw. XXXVI, 114].

fasciata Say, Journ. Acad. Phil. VI, 155; Compl. Wr. II, 353 (*Xylophagus*). — Indiana (may this not be the same as *Arthropceas americana* Loew?).

**pallipes* Loew, Centur. III, 9. — Atlantic States.

Bolbomyia.

Loew, Bernstein u. Bernsteinfauna, 39, 1850. (⁴⁶).

**nana* Loew, Centur. II, 5. — District Columbia (compare about this species Dr. Loew's article, On the Diptera of the amber fauna, translated in Sillim. Journ. Vol. XXXVII, 313).

Dialysis.

dissimilis Walker, Dipt. Saund, 4; List, etc. I, 128 (*X. americanus* Wied.?). — Locality not given, but probably North America, from the comparison to *X. americanus*.

NB. According to Loew, Monogr. etc. I, 16 the bristle-like fourth antennal joint ascribed by Mr. Walker to this species renders it very doubtful, whether it is properly referred to the Xylophagidae. I do not remember having seen it in the Brit. Mus.

Macroceromys.

Bigot, Ann. Soc. Ent. de Fr. 1877, Bulletin LXXIII.

fulviventris Bigot ♀ (not described). — Mexico. (The genus is referred by the author to the Xylophagidae.)

FAMILY COENOMYIDAE. (47).

Coenomyia.

Latreille, Précis des Caract. génér. etc. 1797; *Sicus* Fabr. (47a).

***pallida** Say, Long's Exped. Append. 369; Amer. Ent. II, plate XX; Compl. Wr. I, 42 and 251; Wiedemann, Auss. Zw. I, 86, 1; Harris, Ins. New Engl., 407; Macquart, Dipt. Exot. 5^e Suppl. 38, 1. — Atlantic States.

Observation. Mr. Loew (Sillim. Journ. N. Ser. XXXVII, 317) states that this species is the same as the European *C. ferruginea*. About *Sicus crucis* Fabr. Ent. Syst. IV, 264, 7, and Syst. Antl. 76, 5, from the West Indies, Wiedemann (Auss. Zw. I, 86) says, that it is in no way different „from *errans* and hence, the same as *Coen. ferruginea* Meig.^a.

Arthropeas.

Loew, Stett. Ent. Z. 1850, 302—308.

***americana** Loew, Centur. I, 16. — Northern Wisconsin; Massachusetts.

***leptis** nov. spec. See the note (48). — White Mts, N. H.

FAMILY STRATIOMYIDAE.

SECTION I. BERIDINA (Loew, Mon. I, 17).

Metoponia.

Macquart, Dipt. Exot. 2^e Suppl. 28; 1847.

***fuscitarsis** Say, J. Acad. Phil. III, 29, and VI, 155; Compl. Wr. II, 52, and 353 (*Beris*). — Atlantic States and Canada.

Sargus dorsalis Say, Long's Exped. App. 377; Compl. Wr. I, 257; Wiedemann, Auss. Zw. I, 540, 3 (*Beris*).

Sargus pallipes Wiedemann, Auss. Zw. II, 41.

Beris lata Walker, List, etc. I, 127.

Beris brevis Walker, List, etc. I, 127.

- ***obscuriventris** Loew, Centur. IV, 45. — Distr. Columbia; Connecticut [Loew, Besch. Europ. Dipt. III, 72, mentions a species from Siberia which he thinks may be identical with this].
 ***similis** Loew, Centur. IV, 44. — New York.

Beris.

- Latreille, Hist. Nat. des Crust. et des Ins. XIV, 340; 1804.⁽⁴⁹⁾.
 ***viridis** Say, Long's Exped. App. 368, 1; Compl. Wr. I, 251; Wiedemann, Auss. Zw. I, 83, 2 — Atlantic States and Brit. Possessions.
Beris quadridentata Walker, List, etc. I, 127.
mexicana Bellardi, Saggio, etc. I, 20, Tab. I, 6. — Mexico.

Neoxaireta.

- Exaireta* Schiner, Verh. Zool. Bot. Ges. 1867, 309; Novara etc. p. 71, 1868; *Diphysa* Macquart, Dipt. Exot. I, 1, 172 (ex parte). ⁵⁰.
rufipalpis Wiedemann, Auss. Zw. II, 619, 10 (*Xylophagus*); Macquart, Dipt. Exot. I, 1, 172 (*Diphysa*). — Mexico.

SECTION II. SARGINA (Loew, Monogr. etc. I, 17).

Sargus.

Fabricius, Ent. Syst. Suppl. 566; 1798. ⁽⁵¹⁾.

- debilis** Walker, Dipt. Saund. 83. — United States.
 ***decorus** Say, Long's Exp. App. 376; Compl. Wr. I, 257; Wiedemann, Auss. Zw. II, 38, 19. — North America, common.
Sargus marginatus v. d. Wulp. Tijdschr. v. Ent. 2^d Ser. II, 134 [Loew, Zeitschr. für Ges. Naturw. XXXVI, 119].
 ***elegans** Loew, Centur. VII, 10. — New York; Kentucky; Florida; Massachusetts.
trivittatus Say, J. Acad. Phil. VI, 159; Compl. Wr. II, 355. — Indiana.
xanthopus Wiedemann, Auss. Zw. II, 40. — Pennsylvania.
Alchidas Walker, List, etc. III, 517. — Jamaica.
aureus Bellardi, Saggio, etc. I, 42, Tab. I, 20. — Mexico.
Bagosas Walker, List, etc. III, 518. — Jamaica.
bicolor Wiedemann, Auss. Zw. II, 41. — Porto Rico.
caesius Bellardi, Saggio, etc. I, 40; Tab. I, 18. — Mexico.
clavatus Walker, List, etc. V, 93. Bellardi, Saggio, etc. I, 41. (The identification of W.'s description is given as doubtful.) — Brazil (Walker); Mexico (Bell.).
 ***lateralis** Macquart, H. N. Dipt. I, 262; Bigot, in R. de la Sagra etc., 800. — Cuba.
latus Bellardi, Saggio, etc. I, 41; Tab. I, f. 19. — Mexico.
linearis Walker, List, etc. V, 328. — Mexico.
 ***lucens** Loew, Centur. VII, 11. — Cuba.
nigrifemoratus Macquart, Dipt. Exot. 2^e Suppl. 31, 10; Bellardi, Saggio, etc. I, 42. — Mexico.

- **pleuriticus* Loew, Centur. VII, 13. — Cuba.
Sallei Bellardi, Saggio, etc. I, 43; Tab. I, f. 21. — Mexico.
speciosus Macquart, Dipt. Exot. 1^e Suppl., 56, 9; Bellardi, Saggio, etc. I, 40. — Yucatan (Macquart); Mexico (Bellardi).
stramineus Fabricius, Syst. Antl. 253 (*Scava*): Wiedemann, Auss. Zw. II, 39; Bellardi, Saggio, etc. I, 44. — Mexico.
subinterruptus Bellardi, Saggio, etc. I, 44; Tab. I, f. 22; Walker, Trans. Ent. Soc. N. Ser. V, 271. — Mexico.
**tricolor* Loew, Centur. VII, 12. — Cuba.
versicolor Bellardi, Saggio, etc. App. 13, f. 8. — Mexico.

Chloromyia.

- Duncan, Magaz. Zool. and Bot. 1837; *Chrysomyia* Macquart, Hist. Nat. Dipt. I, 262; 1834. (?)
**viridis* Say, J. Acad. Phil. III, 87; Compl. Wr. II, 77 (*Sargus*): Wiedemann, Auss. Zw. 39 (*id.*). — United States and Canada (Quebec); also in California.

Microchrysa.

Loew, Verh. Zool. Bot. Ver. 1855.

- **polita* Linné, Meigen, etc. (*Sargus*). — Europe and North America.

Ptecticus.

Loew, Verh. Zool. Bot. Ver. 1855. (53).

- **testaceus* Fabricius, Syst. Antl. 257, 6 (*Sargus*); Wiedemann, Auss. Zw. II, 35, 15 (*id.*); Macquart, Dipt. Exot. I, 1, 203, 5, and Suppl. I, 57 (*id.*); Bellardi, Saggio, etc. I, 45 (*id.*); Rondani, Studi Ent. I, 103 (*id.*). — South America (Fabr., Wied.); Yucatan (Macq.; Mexico (Bellardi). —

NB. Specimens occurring in the United States (I have a pair from Genesee, Western New York) are somewhat different; the four last joints of the tarsi are white, instead of joints 2 and 3 only, as stated in the descriptions.

Chrysochlora.

Latreille, Familles Natur. 1825; Macquart, Dipt. Exot. I, 1, 198;
Loew, Verh. Zool. Bot. Ver. 1855.

- purpurea* Walker, Trans. Ent. Soc. Nat. Ser. V, 271. — Mexico.

Chrysonotus.

Loew, Verh. Zool. Bot. Ver. 1855.

- **nigricornis* Loew, Centur. VII, 14. — Distr. Columbia; Western New York.

Nothomyia.

Loew, Centur. VIII, 4; 1869.

- **calopus* Loew, Centur. VIII, 5. — Cuba.
**scutellata* Loew, Centur. VIII, 4. — Cuba.

SECTION III. HERMETINA (Loew, Monogr. etc. I, 18).

Hermetia.

Latreille Hist. Nat. des Crust. etc. XIV, 338; 1804.

- * *chrysopila* Loew, Centur. X, 11. — Texas.
- * *illucens* Linné, Syst. Nat. II, 979, 2 (*Musca illucens* and *leucopa*); Degeer, Ins. VI, 205, 3, pl. XXIX, fig. 8 (*Nemotelus*); Fabricius Mant. II, 327, 2 (*Bibio*); Entom. Syst. IV, 253, 2 (*Mydus*); Syst. Antl. 62, 1 (*Hermetia*); Latreille, Dict. d'Hist. Nat. XXIV, 194, 54; Hist. Crust. et Ins. XIV, 338; Gen. Crust. et Ins. IV, 271; Lamarck, Hist. Anim. sans Vert. III, 355, 2 (*Xylophagus*); Wiedemann, Auss. Zw. II, 22, 1, pl. VII, f. 3; Guérin et Percheron, Genera, etc. Dipt. Tab. IV; Macquart, Hist. Nat. Dipt. I, 228, 1; Dipt. Exot. I, 1, 177, 1, pl. XXI, f. 2; Bigot, in R. de la Sagra etc. 799; Bellardi, Saggio, etc. I, 26. — South America, West Indies, Mexico; also in the United States. (I received a specimen labelled New York.)
- * *sexmaculata* Macquart, Hist. Nat. Dipt. I, 229, 4. — Porto Rico (Macq.); Cuba; Florida (M. C. Z.).
- aurata* Bellardi, Saggio, etc. I, 27, Tab. I, f. 8. — Mexico.
- coarctata* Macquart, Dipt. Exot. Suppl. I, 50, 2, pl. V, fig. 4; Bellardi, Saggio, etc. I, 24. — Merida de Yucatan (Macq.); Mexico (Bellardi); South America (Schiner, Novara, 70).
- * *lativentris* Bellardi, Saggio, etc. I, 27; Tab. I, f. 9; also App. 8. — Mexico.
- planifrons* Macquart, Dipt. Exot. Suppl. I, 50, 3. — Yucatan.

SECTION IV. ODONTOMYINA.

Oxycera.

Meigen, Illiger's Magaz. II, 265; 1803. (⁷⁴).

- * *centralis* Loew, Centur. III, 14. — Red River of the North.
- * *maculata* Olivier, Encycl. Méthod. VIII, 600, 4; Macquart, Dipt. Exot. I, 2, 190. — Carolina; Distr. Columbia. Massachusetts.
- picta* v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 133; compare also Loew, Zeitschr. f. ges. Naturw. XXXVI, 117. — Wisconsin.
- * *unifasciata* Loew, Centur. III, 15. — Pennsylvania.
- variegata* Olivier, Encycl. Méthod. VIII, 600, Macquart, Dipt. Exot. I, 2, 191. — North Carolina.
- * *Crotchii* O. Sacken, Western Dipt., 212. — California.
- Liburna* Walker, List, etc. III, 528. — Jamaica.
- metallica* Wiedemann, Auss. Zw. II, 60. — St. Thomas [Loew in it suspects this species to be a *Nothomyia*].

Euparyphus.

Gerstaecker, Linn. Entom. XI, 1857. (⁷⁵).

- * *bellus* Loew, Centur. VII, 18. — Massachusetts.
- * *brevicornis* Loew, Centur. VII, 16. — Distr. Columbia.

- * *stigmatalis* Loew, Centur. VII, 17. — Distr. Columbia; Western N Y.
- * *tetraspilus* Loew, Centur. VII, 15. — New York; Quebec, Can.
- elegans* Wiedemann, Auss. Zw. II, 58, 8 (*Cyphomyia*); Gerstäcker, Linn. Entom. XI, 316. — Mexico.

Odontomyia.

Meigen, Klassific. etc. I, 128; 1804. (⁵⁶).

- * *binotata* Loew, Centur. VI, 22. — Illinois; Texas.
- brevipennis* Olivier, Encycl. Méthod. VIII, 434, 13. — Carolina.
- canadensis* Walker, List, etc. V, 310 (*Stratiomys*). — Canada.
- * *cineta* Olivier, Encycl. Méthod. VIII, 432, 3; Macquart, Dipt. Exot. I, 2, 189. — Carolina; Illinois.
- * *flavicornis* Olivier, Encycl. Méthod. VIII, 433, 9; Macquart, Hist. Nat. Dipt. I, 248, 4. — North America.
- * *hieroglyphica* Olivier, Encycl. Méth. VIII, 434. — Carolina; Distr. Columbia.
- * *inaequalis* Loew, Centur. VI, 24. — Fort Resolution, Huds. B. Terr.
- intermedia* Wiedemann, Auss. Zw. II, 64, 5. — North America.
- interrupta* Olivier, Encycl. Méthod. VIII, 433, 8. — Carolina.
- * *lasiophthalma* Loew, Centur. VI, 23. — New York; New Jersey.
- limbipennis* Macquart, Dipt. Exot. Suppl. 2, 30, 24. — America? (⁵⁷).
- * *microstoma* Loew, Centur. VI, 28. — Massachusetts; New York.
- * *nigerrima* Loew, Centur. X, 6. — Middle States.
- * *nigrirostris* Loew, Centur. VI, 19. — Northern Wisconsin.
- obscura* Olivier, Encycl. Méthod. VIII, 433, 7; Macquart, Dipt. Exot. I, 2, 189. — Carolina.
- Paron* Walker, List, etc. III, 536. — Trenton Falls, New York.
- * *pilimana* Loew, Centur. VI, 27. — Illinois.
- * *plebeja* Loew, Centur. X, 5. — Connecticut.
- * *varipes* Loew, Centur. VI, 21. — Carolina.
- vertebrata* Say, Long's Exped. App. 369; Compl. Wr. I, 251; Wiedemann, Auss. Zw. II, 73, 20; Bellardi, Saggio, etc. I, 38. — N. W. Territory (Say).
- * *virgo* Wiedemann, Auss. Zw. II, 69, 13. — Georgia.
- * *arenata* Loew, Centur. X, 4. — California.
- * *megacephala* Loew, Centur. VI, 20. — California.
- affinis* Bellardi, Saggio, etc. I, 35, Tab. I, 12. — Mexico.
- albomaculata* Macquart, Dipt. Exot. I, 1, 189, 12. — San Domingo.
- dorsalis* Fabricius, Syst. Antl. 82, 20; Wiedemann, Auss. Zw. II, 66 (*Stratiomys*). — South America (Wied; but Fabricius has „in Americae insulis“).
- dissimilis* Bellardi, Saggio, etc. I, 35, Tab. I, f. 13, 14. — Mexico.
- emarginata* Macquart, Dipt. Exot. I, 1, 190, 14. — Mexico.
- femorata* Bellardi, Saggio, etc. I, 37. — Mexico.
- flavifasciata* Macquart, Dipt. Exot. 4^e Suppl. 53, 36. — Mexico.
- Lefebvrei* Macquart, Dipt. Exot. I, 1, 189, 13; comp. also Walker, List, etc. V, 311; Bellardi, Saggio, etc. I, 33. — Mexico

- maenulifrons* Walker, List, etc. III, 536. — Honduras.
prasina Jaenicke, Neue Exot. Dipt. 16. — Mexico.
quadrinaculata Bellardi, Saggio, etc. I, 37; Tab. I, f. 15. — Mexico.
rubricornis Macquart, Dipt. Exot. Suppl. I, 53, 21. — Yucatan.
 * *rufipes* Loew, Centur. VI, 25. — Cuba.
 * *scalaris* Loew, Centur. VI, 26. — Cuba.
tritaeniata Bellardi, Saggio, etc. I, 38; Tab. I, f. 17. — Mexico.
Truquii Bellardi, Saggio, etc. I, f. 11. — Mexico.
vicina Macquart, Dipt. Exot. I, 188, 11. — Cuba.
viridis Bellardi, Saggio, etc. I, 36; Tab. I, f. 16. — Mexico.

Stratiomyia.

- Stratiomys*, Geoffroy, Hist. Nat. d. In. II, 475; 1764. ⁽⁵⁸⁾.
Stratiomyia, as amended by Loew, Centur. VII, 4. *)
- * *angularis* Loew, Centur. VI, 16. — Philadelphia.
 * *apicula* Loew, Centur. VI, 13. — Illinois.
 * *constans* Loew, Centur. X, 8. — Texas.
 * *discalis* Loew, Centur. VI, 14. — Illinois.
flaviceps Macquart, Hist. Nat. Dipt. I, 245. — Philadelphia.
Stratiomys coronata, Guérin, Iconogr. Texte, 544; Tab. 98, f. 6.
 * *laticeps* Loew, Centur. VII, 20. — Huds. B. Terr.
 * *lativentris* Loew, Centur. VI, 8. — Lake Superior.
lineolata Macquart, Dipt. Exot. 4^e Suppl. 48, 6; Tab. III, f. 5. — Virginia.
 * *marginalis* Loew, Centur. VI, 17. — Philadelphia.
 * *Meigenii* Wiedemann, Auss. Zw. II, 61, 2 (Tab. VIII, f. 7). — Savannah.
nigrifrons Walker, List, etc. III, 531. — Huds. B. Terr.
 * *norma* Wiedemann, Auss. Zw. II, 62, 3. — North America.
 * *nigriventris* Loew, Centur. VI, 15. — Nebraska.
 * *normula* Loew, Centur. VI, 5. — New York.
 * *notata* Loew, Centur. VI, 18. — Nebraska.
nymphis Walker, List, etc. III, 530. — Huds. B. Terr.
 * *obesa* Loew, Centur. VI, 11. — Illinois.
 * *picipes* Loew, Centur. VII, 21. — Massachusetts; Canada; Lake Winnipeg.
Stratiomys ischiaca (Harris) Walker, List, etc. III, 529. — Massachusetts.
Stratiomys badius Walker, List, etc. III, 529. — New Hampshire [See Walker, l. c. 1157, where the habitat originally stated „New Holland“, is declared erroneous, and the synonymy with *S. ischiaca* is acknowledged].
pulchella Macquart, Dipt. Exot. I, 1, 180, 3; Tab. XXII, f. 2. — Georgia.
 * *quadrigenina* Loew, Centur. VI, 4. — Connecticut.
 * *quaternaria* Loew, Centur. VI, 12. — Illinois.

*) Geoffroy, in translating Réaumur's *mouche armée*, evidently meant to make the name *Stratiomyia* and not *Stratiomys*, which is nonsensical.

- robusta** Walker, List, etc. V, 37. — North America.
- ***senaria** Loew, Centur. VI, 7. — Florida.
- ***milinubata** Loew, Centur. VI, 6. — Wisconsin.
- vicina** Macquart, Dipt. Exot. I, 1, 181, 4 (the male of *S. flaviceps*?
Macq.). — Philadelphia.
- ***barbata** Loew, Centur. VI, 9. — California.
- ***insignis** Loew, Centur. X, 7. — California.
- ***maculosa** Loew, Centur. VII, 19. — California.
- ***melastoma** Loew, Centur. VI, 10. — California.
- bimaenulata** Bellardi, Saggio, etc. App. 10; fig. 7. — Mexico.
- constricta** Walker, Trans. Ent. N. Ser. V, 263. — Mexico.
- euchlora** Gerstaecker, Linn. Ent. XI, 328. — Mexico.
- fenestrata** Gerstaecker, Linn. Ent. XI, 327. — Mexico.
- Gerstaeckeri** Bellardi, Saggio, etc. I, 31; Tab. I, f. 10. — Mexico.
- goniphora** Say, J. Acad. Phil. VI, 161; Compl. Wr. II, 356. — Mexico.
- ***mutabilis** Fabricius, Ent. Syst. IV, 266; Syst. Antl., 81; Wiedemann, Auss. Zw. II, 63, Tab. VIII, f. a—d; Perty, Del. Anim. etc. Tab. 38, 14; Bellardi, Saggio, etc. I, 30; compare also Schiner, Novara etc. 61. — Mexico, Brazil.
- Stratiomys fasciata* Fabricius, Ent. Syst. IV, 266; Syst. Antl., 81 [Bellardi].
- pinguis** Walker, Trans. Ent. Soc. N. Ser. V, 270. — Mexico.
- subalba** Walker, List, etc. V, 45; Bellardi, Saggio, etc. I, 31. — Mexico, Brazil.
- trivittata** Say, J. Acad. Phil. VI, 160; Compl. Wr. II, 356. — Mexico.

Cyphomyia.

- Wiedemann, Zool. Mag. I, 3, 55, 1819; Analecta etc. 1824;
Gerstaecker, Linn. Ent. XI, 263. ⁽⁵⁹⁾.
- albicans** Fabricius, Syst. Antl. 80, 12 ♀ (*Stratiomys*); Gerstaecker, Linn. Ent. XI, 300; Bellardi, Saggio, etc. I, 22. — Guyana, Columbia (Gerst.); Yucatan (Macq.); Mexico (Bell.); South America (Schin., Novara, 53).
- Cyphomyia fenestrata* Macq. Dipt. Exot. Suppl. I, 48, ♂ ♀ [Gerst.].
- auriflamma** Wiedemann, Zool. Mag. I, 3, 54; Auss. Zw. Vol. II, 54; Tab. VIII, f. 1; Macquart, Hist. Nat. Dipt. I, 242; Guérin, Iconogr. Tab. XCVIII, f. 5; Gerstaecker, Linn. Ent. XI, 276; Bellardi, Saggio, etc. I, 21. — Mexico, Brazil, Guyana.
- Cyphomyia chrysodota* Perty, Del. An. Art. 184; Tab. XXXVI, f. 14, ♂ [Gerst.].
- Cyphomyia cyanea* Macquart, Hist. Nat. Dipt. I, 242, ♀ [Gerst.].
- ***marginata** Loew, Centur. VI, 31. — Cuba.
- pilosissima** Gerstaecker, Linn. Ent. XI, 292. — Mexico.
- ***rubra** Loew, Cent. VI, 30. — Cuba.
- similis** Bellardi, Saggio, etc. I, 23; Tab. I, f. 7. — Mexico.
- scalaris** Bigot, Ann. Soc. Ent. 1875, 487. — Mexico.
- simplex** Walker, Trans. Ent. Soc. N. Ser. V, 263. — Mexico.

tomentosa Gerstaecker, Linn. Ent. XI, 294; Bellardi, Saggio, etc. I, 22. — Mexico.

varipes Gerstaecker, Linn. Ent. XI, 283; compare also Schiner, Novara, 52. — Mexico; Columbia (Schiner).

Acanthina.

Wiedemann, Auss. Zw. II, 50. 1830; compare also Gerstaecker, Linn. Ent. XI, 335.

nana Bellardi, Saggio, etc. App., 9. — Mexico.

***ornata** Macquart, Dipt. Exot. Suppl. I, 51; Tab. V, f. 5; Bellardi, Saggio, etc. I, 28. — Brazil, Mexico.

Chordonota.

Gerstaecker, Linn. Ent. XI, 311; 1857.

carbonaria Bellardi, Saggio, etc. App. 11. — Mexico.

fuscipennis Bellardi, Saggio, etc. App. 11, f. 6. — Mexico.

Clitellaria.

Meigen, Illiger's Magaz. II, 265; 1803. (60).

***subulata** Loew, Centur. VI, 29. — Virginia.

***lata** Loew, Centur. X, 9. — California.

***rustica** O. Sacken, Western Diptera, 213. — California (Marin and Sonoma Co.).

Anchialus Walker, List, etc. III, 522 („var. *chalybeae* Wied. ?“ according to Walker l. c. IV, 1157). — Jamaica.

fenestrata Macq., Dipt. Exot. 1^e Suppl. 54, 3 (*Ephippium*). — Yucatan.

halala Walker, List, etc. III, 523. — Honduras.

obesa Walker, Trans. Ent. Soc. N. Ser. V, 270. — Mexico.

Euryneura.

Schiner, Verh. Zool. Bot. Ges. 1867, 308; Novara etc. p. 56, 1868.

pygmaea Bellardi, Saggio, etc. App. 12, fig. 5 (*Clitellaria*); considered an *Euryneura* by Schiner, l. c. — Mexico.

Neorondania.

Rondania, Jaennicke, Neue Exot. Dipt. 1867. (61).

obscura Jaennicke, Neue Exot. Dipt., 17. — Mexico.

chalybea Wiedemann, Anal. Ent. 30, 36; Auss. Zw. II, 49, 4 (*Clitellaria*); — Jaennicke, Tab. I, f. 4. — St. Thomas.

Nematelus.*)

Geoffroy, Hist. Nat. d. Ins. II, 542; 1764. (62).

albistrois Macquart, Dipt. Exot. 4^e Suppl. 55, 3; Tab. III, f. 8. — Virginia.

*) *Nematotulus* would be more correct, but the name, one of the oldest in dipterology, is too venerable for a change.

- carneus* Walker, List, etc. III, 521. — Huds. B. Terr.
 **canadensis* Loew, Centur. III, 12. — Fort Resolution, Huds. B. Terr.
 **carbonarius* Loew, Centur. VIII, 6. — Massachusetts.
 **crassus* Loew, Centur. III, 10. — Rhode Island.
 **glaber* Loew, Centur. X, 10. — Texas.
pallipes Say, J. Acad. Phil. III, 29; Compl. Wr. II, 52; Wiedemann, Auss. Zw. II, 45, 2. — Pennsylvania.
 **unicolor* Loew, Centur. III, 11. — Illinois.
 **acutirostris* Loew, Centur. III, 13. — Cuba.
polyposus Say, J. Acad. Phil. VI, 160; Compl. Wr. II, 356. — Mexico.

Observation. *N. nigrinus* Fall. from Europe, according to v. d. Wulp, l. c. 126 also occurs in the United States.

SECTION V. PACHYGASTRINA.

Pachygaster.

Meigen, Illiger's Magaz. II, 266; 1803. ⁽⁶⁸⁾.

- **pulcher* Loew, Centur. III, 16. — Distr. Columbia.

Chauna.

Loew, Stett. Ent. Zw. VIII, 370; 1847.

Gerstaecker, Linn. Ent. XI, 338.

- **variabilis* Loew, Stett. Ent. Zw. VIII, 370, Tab. I, f. 11—15. — Cuba.
Chauna ferruginea Gerstaecker, Linn. Ent. XI, 340; Tab. III, f. 7. [Synonymy according to Loew, Berl. Ent. Z. Vol. II, 349; who acknowledges that Gerstaecker's error was due to the imperfect description and figure of the antennae of *Ch. variabilis*.]

FAMILY ACANTHOMERIDAE.

Acanthomera.

Wiedemann, Dipt. Exot. 60; 1821.

- Bellardii* Bigot; Bellardi, Saggio, etc. App. 16, f. 11. — Mexico.
Bigotii Bellardi, Saggio, etc. App. 16, f. 10. — Mexico.
crassipalpis Macquart, Dipt. Exot. 2^e Suppl. 27, 5; Tab. I, f. 3 (*female*). — Guatemala.
pieta Wiedemann, Dipt. Exot., 61, Tab. II, f. 2; Auss. Zw. I, 108. Macquart, Dipt. Exot. I, 167; Guérin, Iconogr., Tab. XCVIII, f. 3. Bellardi, Saggio, etc. I, 76. — Brazil, Mexico.
seticornis Wiedemann, Auss. Zw. I, 108, 1; Macquart Dipt. Exot. I, 1, 168, 3; Tab. XX, f. 1 and Suppl. 2^a, 27. — Brazil (Wied.); Guatemala (Macquart). Macquart suspects that this is the male of his *A. crassipalpis*.
tabanina Thunberg, Act. Soc. Gothob. 1819, 111, 7; Tab. VII, f. 2 (*Pantophthalmus*); Wiedemann, Auss. Zw. I, 110, 4. — West Indies.

FAMILY TABANIDAE. ⁽⁶⁴⁾.**Pangonia.**

Latreille, Hist. Nat. des Crust. et des Ins. III, 437; 1802. ⁽⁶⁵⁾.

* *chrysocoma* O. Sacken, Prodrôme etc. I, 368. — Trenton Falls, New York; Delaware.

fusiformis Walker, Dipt. Saund. 19. — North America.

isabellina Wiedemann, Auss. Zw. I, 112, 3 (*Silvius*). — North America. ⁽⁶⁶⁾.

macroglossa Westwood, London and Edinburgh Philos. Magaz. 1835; reproduced in O. Sacken, Prodrôme, 368. — Georgia.

* *pigra* O. Sacken, Prodrôme etc. I, 367. — New York, Kentucky.

* *rasa* Loew, Centur. VIII, 7; O. Sacken, Prodrôme etc. I, 366. — Illinois; Wisconsin; New York.

* *tranquilla* O. Sacken, Prodrôme etc. I, 367. — Pennsylvania; Massachusetts; White Mts., N. H.; Quebec, Can.

* *hera* O. Sacken, Western Diptera, 214. — San Francisco, Cal.

* *incisa* Wiedemann, Auss. Zw. I, 90, 6. — Arkansas (Say); Colorado Springs, Col.

Pangonia incisuralis Say, J. Acad. Phil. III, 31; Amer. Entom. pl. XXXIV; Compl. Wr. I, 75 [change of name by Wiedemann].

aurulans Wiedemann, Auss. Zw. II, 620, 12. — Mexico.

atrifera Walker, Trans. Ent. Soc. New series V, 272. — Mexico.

flavohirta Bellardi, Saggio, etc. I, 49. — Mexico.

fulvithorax Wiedemann, Auss. Zw. I, 89; Bigot, R. de la Sagra etc., 797. — Brazil (Wied.); Cuba (Bigot).

incerta Bellardi, Saggio, etc. I, 52. — Mexico.

nigronotata Macquart, Dipt. Exot. 4^e Suppl. 27, 56; Tab. II, f. 5; Bellardi, Saggio, etc. I, 51. — Mexico.

planiventris Macquart, Dipt. Exot. 4^e Suppl. 26, 55. — Mexico.

rhizophora Bellardi, Saggio, etc. I, 46; Tab. II, f. 1. — Mexico.

rostrifera Bellardi, Saggio, etc. I, 47. — Mexico.

Sallei Bellardi, Saggio, etc. I, 50. — Mexico.

Saussurei Bellardi, Saggio, etc. I, 49; Tab. II, f. 4. — Mexico.

semiflava Wiedemann, Auss. Zw. II, 622, 16; Bellardi, Saggio, etc. I, 51; Tab. II, f. 2. — Mexico.

Pangonia bicolor Macquart, Dipt. Exot. 4^e Suppl. 27, 57 (Bellardi).

temnirostris Walker, Trans. Ent. Soc. N. Ser. V, 272. — Mexico.

Wiedemanni Bellardi, Saggio, etc. I, 48; Tab. II, f. 3. — Mexico.

Pangonia basilaris Wiedemann, Auss. Zw. II, 621. [The name was changed by Bellardi.]

Chrysops.

Meigen, in Illiger's Magaz., 1803. ⁽⁶⁷⁾.

* *aestuanus* van der Wulp, Tijdschr. v. Ent. 2. Ser. II, 135; Tab. III, f. 8, 9; O. Sacken, Prodrôme etc. I, 378. — North Western States.

(?) *Chrysops moerens* Walker, List, etc. I, 201. — Nova Scotia.

- ***atropos** O. Sacken, *Prodrome* etc. I, 372. — Florida.
Chrysops divisis Walker, *List*, etc. I, 204.
- ***callidus** O. Sacken, *Prodrome* etc. I, 379. — Middle States.
- ***celer** O. Sacken, *Prodrome* etc. I, 376. — Middle States; Massachusetts.
- ***delicatulus** O. Sacken, *Prodrome* etc., I, 380. — North Conway, N. H.
- ***excitans** Walker, *Dipt. Saund*, 72; O. Sacken, *Prodrome* etc. I, 373. — Northern United States and British Possessions.
- ***fallax** O. Sacken, *Prodrome* etc. I, 392. — Middle and Northern States.
- ***flavidus** Wiedemann, *Dipt. Exot.* I, 105, 5; *Auss. Zw.* I, 199, 7; O. Sacken, *Prodrome* etc. I, 385. — Atlantic States; British Possessions.
Chrysops pallidus Bellardi, *Saggio*, etc. I, 73; *Tab.* II, f. 16. — Mexico.
Chrysops canifrons Walker, *List*, etc. I, 197. — Florida.
- ***frigidus** O. Sacken, *Prodrome* etc. I, 384; also II, 474. — Northern States and British Possessions.
- ***fugax** O. Sacken, *Prodrome* etc. I, 375. — Northern States and British Possessions.
 (?) *Chrysops carbonarius* Walker, *List*, etc. I, 203 (*ex parte*).
 (?) *Chrysops ater* Macquart, *Dipt. Exot.* 4^e Suppl. 40, 18. — Newfoundland.
- ***hilaris** O. Sacken, *Prodrome* etc. I, 391. — Middle and Northern States; Canada.
- ***indus** O. Sacken, *Prodrome* etc. I, 383. — Western New York, Canada.
lugens Wiedemann, *Dipt. Exot.* I, 109, 12; *Auss. Zw.* I, 212, 26. — Georgia (Wied.).
- ***morosus** O. Sacken, *Prodrome* etc. I, 389; also II, 474. — Maryland; Florida; Texas.
 (?) *Chrysops trinotatus* Macquart, *Dipt. Exot.* I, 1, 161, 9.
- ***mitis** O. Sacken, *Prodrome* etc. I, 374. — British Possessions; Lake Superior.
 (?) *Chrysops prorocans* Walker, *Dipt. Saund*, 73.
- ***mochus** O. Sacken, *Prodrome* etc. I, 387. — Middle and Southern States.
- ***montanus** O. Sacken, *Prodrome* etc. I, 382. — Catskill Mountain House, New York.
- ***niger** Macquart, *Dipt. Exot.* I, 1, 161, 10; O. Sacken, *Prodrome* etc. I, 377. — Atlantic States and British Possessions.
 (?) *Chrysops carbonarius* Walker, *List*, etc. I, 203 (Var. β).
- nigripes** (Zetterstedt) Loew, *Verh. Zool. Bot. Ges.* 1858, 623. — Lapland; Sitka.
- ***obsoletus** Wiedemann, *Dipt. Exot.* I, 108, 10; *Auss. Zw.* I, 211, 25; O. Sacken, *Prodrome* etc. I, 393. — Middle and Northern States. (^{es}).
- ***plangens** Wiedemann, *Auss. Zw.* I, 210, 22 (♀); O. Sacken, *Prodrome* etc. I, 393. — Atlantic States.
Chrysops fuliginosus Wiedemann, *Dipt. Exot.* I, 109, 11; *Auss. Zw.* I, 210, 23 (♂).
- ***pu diens** O. Sacken, *Prodrome* etc. I, 381 and II, 474. — Massachusetts, Florida; Long Island, New York.

- ***sordidus** O. Sacken, *Prodrome* etc. I, 376. — White Mts., N. H.; British Possessions.
- ***striatus** O. Sacken, *Prodrome* etc. I, 391. — District Columbia; Illinois.
Chrysops furcatus Walker, *List*, etc. I, 199.
Chrysops vittatus Bellardi (non Wiedemann), *Saggio*, etc. I, 74. — Mexico.
- ***univittatus** Macquart, *Dipt. Exot.* 5^e Suppl. 36, 21; O. Sacken, *Prodrome* etc. I, 387. — Middle States.
 (?) *Chrysops fascipennis* Macquart, *Hist. Nat. Dipt.* I, 216.
- ***vittatus** Wiedemann, *Dipt. Exot.* I, 106, 7; *Auss. Zw.* I, 200, 8; Macquart *Dipt. Exot.* 5^e Suppl. 37, 22; O. Sacken, *Prodrome* etc. I, 390. — Middle and Northern States.
Chrysops areolatus Walker, *List*, etc. I, 197.
Chrysops lineatus Jaennicke, *Neue Exot. Dipt.* 26.
- ***fulvaster** O. Sacken, *Western Diptera*, 221. — Colorado; Utah.
- ***noctifer** O. Sacken, *Western Diptera*, 220. — Sierra Nevada, Calif.
- ***proclivis** O. Sacken, *Western Diptera*, 222. — Marin Co. Calif.
- ***surdus** O. Sacken, *Western Diptera*, 223. — Sierra Nevada, Cal.
- ***quadrivittatus** Say, *Journ. Acad. Phil.* III, 33, 1; *Compl. Wr.* II, 54; Wiedemann, *Auss. Zw.* I, 200, 9. — Near the Rocky Mts. (Say); Nebraska. (⁶⁹).
- affinis** Bellardi, *Saggio*, etc. I, 70; *Tab.* II, f. 14. — Mexico.
- apicalis** Bellardi, *Saggio*, etc. I, 73. — Mexico.
- crucians** Wiedemann, *Auss. Zw.* I, 211. — Brazil (Wied.), Cuba (Jaennicke, *Neue Exot. Dipt.*, 41).
- ***costatus** Fabricius, *Ent. Syst.* IV, 373, 45 (*Tabanus*); *Syst. Antl.* 112, 8; Palisot, *Ins. Dipt.*, 223; *Tab.* III, f. 7; Wiedemann, *Dipt. Exot.* I, 104, 4; *Auss. Zw.* I, 198, 5; Macquart, *Dipt. Exot.* I, 1, 160, 8; Bigot, in R. de la Sagra, etc. 798; Guérin, *Iconogr. Texte*, III, 542; *Tab.* XCVII, f. 3. (Called *Chr. molestus* on the plate.) — S. America (Fab.); Cuba (Macq.); Jamaica (Wk.).
Tabanus variegatus Degeer, VI, *Tab.* XXX, f. 7 (Synon. very probable).
- frontalis** Macquart, *Dipt. Exot.* I, 1, 160, 7. Walker, *List*, etc. V, 284. — West Indies.
- geminatus** Wiedemann, *Auss. Zw.* I, 205, 16; Macquart, *Dipt. Exot.* 4^e Suppl. 39. — Patria ignota (Wied.); Mexico (Macq.).
- inornatus** Walker, *List*, etc. I, 198. — West Indies; Brazil.
- lateralis** Wiedemann, *Auss. Zw.* I, 209, 21; Walker, *List*, etc. I, 200; V, 288. — Patria ignota (Wied.); Honduras (Walk.).
- latifasciatus** Bellardi, *Saggio*, etc. I, 71; *Tab.* II, f. 15. — Mexico.
- megaceras** Bellardi, *Saggio*, etc. I, 74; *Tab.* II, f. 18. — Mexico.
- scalaratus** Bellardi, *Saggio*, etc. I, 72; *Tab.* II, f. 19. — Mexico.
- subcaecutiens** Bellardi, *Saggio*, etc. I, 69; *Tab.* II, f. 13. — Mexico.
- virgulatus** Bellardi, *Saggio*, etc. I, 71; *Tab.* II, f. 17. — Mexico.

Observation. *Chrysops sepulchralis* (Fabricius?) Kirby, *Fauna Bor. Am. Ins.* 314, 1, is omitted in the above list, because it is

very probably identical with one of the species enumerated therein; but the description is too vague for identification; moreover the identity of the species with the true *C. sepulchralis* Fabricius seems very doubtful.

Silvius.

Meigen, System. Besch. III, 27, 1820. (⁷⁰).

- ***gigantulus** Loew, Centur. X, 12 (*Chrysops*); O. Sacken, Western Diptera, 215. — California; Washington Territory; Vancouver Island; Colorado.

Silvius trifolium O. Sacken, Prodrome etc. I, 395. (⁷¹).

Observation. For *Silvius isabellinus* Wied., see *Pangonia*.

Lepidoselaga.

Lepiselaga Macquart, Dipt. Exot. I, 1, 153, 1838; about its relation to *Hadrus* Perty, compare Loew, Dipt. Sudafrica's I, 31.

- ***lepidota** Wiedemann, Auss. Zw. I, 193 (*Tabanus*); Perty, Delectus etc. 183, Tab. XXXVI, f. 9 (*Hadrus*); Macquart, Dipt. Exot. I, 1, 154; Tab. XVIII, f. 3; Bellardi, Saggio, etc. I, 75 (*Hadrus*); according to Loew, Century VIII, 8, only the female, described by Bellardi, belongs here. — Guyana, Brazil (Perty, Macquart); Mexico (Bellardi). *Haematopota crassipes* Fabricius, Syst. Anth. 108, 4 [Loew, Centur. VIII, 8].

- ***recta** Loew, Centur. VIII, 8. — New Granada, Mexico.

Hadrus lepidotus Bellardi, Saggio, etc. I, 75, male. [Loew, Centur. VIII, 8.]

Haematopota.

Meigen, in Illiger's Magaz. 1803.

punctulata Macquart, Dipt. Exot. I, 1, 163, 2. — Carolina.

- ***americana** O. Sacken, Prodrome etc. I, 395. — North West of the United States and the British Possessions.

Dichelacera.

Macquart, Dipt. Exot. I, 1, 112, 1838.

abiens Walker, List, etc. I, 191. — West Indies.

scapularis Macquart, Dipt. Exot. 2^e Suppl. 15, 9; Bellardi, Saggio, etc. I, 53; Tab. II, f. 12. — Mexico.

Observation. *Dichelacera fasciata* Walker, Dipt. Saund. 68 is erroneously stated to be from North America. The typical specimen in the Brit. Mus. is south american.

Diachlorus.

O. Sacken, Prodrome etc. II, 475, 1876; *Diabasis*, Macquart, Hist. Nat. Dipt. I. 207, Dipt. Exot. I, 1, 150, was preoccupied by a genus of Coleoptera.

- ***ferrugatus** Fabricius, Syst. Anth. 111, 2 (*Chrysops*); Wiedemann, Dipt. Exot. I, 94, 56 (*Tabanus*); Auss. Zw. I, 186, 113 (*id.*); Osten

Sacken, Prodrôme etc. I, 396 (*Diabasis*); id. II, 475. — Southern States; Mexico; Brazil; West Indies; Honduras.

Diabasis atenia Macquart, Dipt. Exot. I, 1, 152, 3.

Chrysops approximans Walker, List, etc. I, 198 (!).

Chrysops convergens Walker, List, etc. I, 198 (!).

Tabanus Rondanii Bellardi, Saggio, etc. I, 68; Tab. II, f. 11.

Tabanus americanus Palisot de Beauvais, Dipt. Tab. III, f. 6.

Therioplectes.

Zeller, Isis 1842 (ex parte); O. Sacken, Prodrôme etc. II, 425; 1876.

**affinis* Kirby, Fauna Bor. Amer. IV, 313, 1 (*Tabanus*); O. Sacken, Prodrôme etc. II, 466. — Northern United States and British Possessions.

Tabanus triligatus Walker, List, etc. V, 183 (!). — Arctic America.

**astutus* O. Sacken, Prodrôme etc. II, 471 (*Tabanus*). — White Mts., N. H.; Manlius, N. Y.; Southington, Conn.

carolinensis Macquart, Dipt. Exot. I, 1, 145, 47 (*Tabanus*). — Carolina. (⁷²).

**cinctus* Fabricius, Ent. Syst. IV, 366, 18 (*Tabanus*); Syst. Antl. 97, 20 (*id.*); Meigen, Syst. Besch. etc. II, 42, 16 (*id.*); Wiedemann, Dipt. Exot. I, 67, 10 (*id.*); Auss. Zw. I, 119, 12 (*id.*); Harris, N. Engl. Ins. 3^d edit. 602, f. 261 (*id.*); O. Sacken, Prodrôme etc. II, 464. — Atlantic States; Mexico (? Walker, List, etc. I, 153).

**epistates* O. Sacken, Prodrôme etc. Suppl. 555. — Huds. B. Terr. *Tabanus socius* O. Sacken, Prodrôme etc. II, 467 (name changed because there is an earlier *T. socius* Walker).

**flavipes* Wiedemann, Auss. Zw. I, 137, 41 (*Tabanus*); O. Sacken, Prodrôme etc. II, 462. — Labrador.

**illotus* O. Sacken, Prodrôme etc. II, 469. — British Possessions in North America.

**lasiophthalmus* Macquart, Dipt. Exot. I, 1, 143, 45 (*Tabanus*); O. Sacken, Prodrôme etc. II, 465. — Atlantic States and British Possessions.

Tabanus notabilis Walker, List, etc. I, 166 (!).

Tabanus punctipennis Macquart, Dipt. Exot. 2^e Suppl. 23, 108; compare also O. Sacken, Prodrôme etc. II, 473. — Philadelphia (!).

**microcephalus* O. Sacken, Prodrôme etc. II, 470. — White Mts., N. H.; Trenton Falls, N. Y.; Massachusetts.

**septentrionalis* Loew, Verh. Zool. Bot. Ges. 1858, 593 (*Tabanus*); O. Sacken, Prodrôme etc. II, 467. — Labrador.

**trispilus* Wiedemann, Auss. Zw. I, 150 (*Tabanus*) (!); O. Sacken, Prodrôme etc. II, 464. — Northern and Middle States; Illinois.

vicinus Macquart, Dipt. Exot. I, 1, 143, 44 (*Tabanus*). — Carolina.

**zonalis* Kirby, Fauna Boreali-Americana, IV, 314, 2 (*Tabanus*); O. Sacken, Prodrôme etc. II, 463. — Northern States, as far West as Oregon, British Possessions.

Tabanus tarandi Walker, List, etc. I, 156 (!).

Tabanus terrae novae Macquart, Dipt. Exot. 4^e Suppl. 35, 109 !).

Tabanus flavocinctus Bellardi, Saggio, etc. I, 61 (!) (⁷³).

- * *phaenops* O. Sacken, Western Diptera, 217. — Sierra Nevada, Cal.
 - * *procyon* O. Sacken, Western Diptera, 216. — Marine Co., Sonoma Co., Cal.
 - * *rhombicus* O. Sacken, Prodrôme etc. II, 472; Western Diptera, 218. — Rocky Mountains, Colorado.
 - * *sonomensis* O. Sacken, Western Diptera, 216. — Marin and Sonoma Co., California.
 - * *quadripunctatus* Fabricius, Syst. Antl. 99, 29 (*Tabanus*); Wiedemann, Dipt. Exot. I, 77, 30 (*id.*); Auss. Zw. I, 151, 63 (*id.*). — Brazil (Wied.); Mexico Bellardi; Central America (M. C. Z.).
- Tabanus nigropunctatus* Bellardi, Saggio, etc. I, 67. (⁷⁴).

Tabanus.

Linné, Fauna Suecica; 1761. (⁷⁵).

- * *abdominalis* Fabricius, Syst. Antl. 96, 15 (Museum Bosc.) (!); O. Sacken, Prodrôme etc. II, 434 and Supplement. — Kentucky, Georgia. (⁷⁶).
(?) *Tabanus abdominalis* Palisot Beauvois, Ins. 101, Tab. II, f. 4.
- * *Actæon* O. Sacken, Prodrôme etc. II, 443. — Massachusetts; Connecticut; Minnesota; Wisconsin; Canada.
- * *americanus* Forster, Nov. Spec. Centur. I, 100; O. Sacken, Prodrôme, etc. II, 457. — Middle and Southern Atlantic States.
Tabanus plumbeus Drury, Ins. I, Tab. 44, 2.
Tabanus ruficornis Fabricius, Syst. Ent. 789, 8; Ent. Syst. IV, 365, 14; Syst. Antl. 96, 14; Wiedemann, Dipt. Exot. I, 62; Auss. Zw. I, 112, 1.
Tabanus limbatus Palisot-Beauvois, Ins. Dipt. Tab. I, f. 2.
- * *annulatus* Say, Journ. Acad. Phil. III, 32, 2; Compl. Wr. II, 53; Wiedemann, Auss. Zw. I, 185; O. Sacken, Prodrôme etc.; Suppl. 555. — Missouri; Cumberland Gap, Ky.; Georgia; Kansas.
- * *atratus* Fabricius, System. Ent. 789, 9; Ent. System. IV, 366, 16; System. Antl. 96, 16; Wiedemann, Dipt. Exot. I, 63, 2; Auss. Zw. I, 114, 3; Macquart, Dipt. Exot. I, 1, 142, 41; Bellardi, Saggio, etc. I, 58; Harris, Ins. N. Engl., 3^d edit. 602; O. Sacken, Prodrôme etc. II, 454. — Atlantic States; Mexico (coll. Bellardi!).
Tabanus niger Palisot-Beauvois, Ins. Dipt. Tab. I, f. 1.
Tabanus americanus Drury, Ins. I, Tab. 44, f. 3.
Tabanus validus Wiedemann, Auss. Zw. I, 113, 2 (!).
- * *catenatus* O. Sacken (non Walker), Prodrôme etc. II, 433. — Atlantic States.
Tabanus recedens Walker, List, etc. I, 147 (!) (⁷⁷).
- * *cerastes* O. Sacken, Prodrôme etc. II, 462. — Kentucky; Wisconsin.
Tabanus hirticollatus Macquart, Dipt. Exot. 5^e Suppl. 33, 128; compare also O. Sacken, Prodrôme II, 473. (⁷⁸).
- * *cingulatus* Macquart, Dipt. Exot. I, 1, 144, 46. — Philadelphia.
- * *coffeatus* Macquart, Dipt. Exot. 2^e Suppl. 23, 109 (♂!); O. Sacken, Prodrôme etc. II, 441. — Distr. Columbia; Delaware; New York, Florida, Massachusetts.

- (?) *Tabanus nigripes* Wiedemann, Auss. Zw. I, 142, 50 (♂).
- * *costalis* Wiedemann, Auss. Zw. I, 173, 94; O. Sacken, Prodrôme etc. II, 450. — Atlantic States.
- (?) *Tabanus costalis* Bellardi, Saggio, etc. 63. — Mexico.
- Tabanus vicarius* Walker, List, etc. I, 137 (!).
- Tabanus baltimorensis* Macquart, Dipt. Exot. 5^e Suppl. 34, 129 (!).
- * *cymatophorus* O. Sacken, Prodrôme etc. II, 441. — Kentucky.
- * *Eudymion* O. Sacken, Prodrôme etc., Supplement, 556. — Georgia.
- * *exul* O. Sacken, Prodrôme etc. Supplement, 557. — District Columbia; Maryland; Pennsylvania; New Jersey.
- Tabanus abdominalis* Wiedemann (non Fabricius), Dipt. Exot. I, 65, 6; Auss. Zw. I, 116, 7 (!).
- * *fronto* O. Sacken, Prodrôme etc. II, 431. — Georgia.
- (?) *Tabanus cheliopertus* Rondani, Nuovi Annali d. Sc. N. di Bologna; descr. reproduced in O. Sacken, Prodr. II, 473. — Carolina. (°).
- * *fulvulus* Wiedemann, Auss. Zw. I, 153, 66; O. Sacken, Prodrôme etc. II, 451. — Middle States; Kentucky.
- * *fuscopunctatus* Macquart, Dipt. Exot. 4^e Suppl. 34, 108 (!); O. Sacken, Prodrôme etc. II, 432; the male in the Supplement, 559. — South Carolina; Georgia; Florida.
- Tabanus imitans* Walker, List, etc. I, 147. — Georgia. (°) (!)
- * *giganteus* Degeer, Ins. VI, 226, 1; Tab. XXX, f. 1; O. Sacken, Prodrôme etc. II, 458. — Middle and Southern Atlantic States; Kansas.
- Tabanus lineatus* Fabricius, Spec. Ins. II, 455, 4; Ent. Syst. IV, 363, 5; Syst. Antl. 94, 3; Wiedemann, Dipt. Exot. I, 63, 3; Auss. Zw. I, 115, 4.
- Tabanus bicolor* Macquart, Dipt. Exot. 2^e Suppl. 21, 105, female (!).
- Tabanus caesiofasciatus* Macquart, Dipt. Exot. 5^e Suppl. 32, 125; male (!).
- gracilis* Wiedemann, Auss. Zw. I, 156, 71. — Georgia. (°).
- * *lineola* Fabricius, Ent. Syst. IV, 369, 33; Syst. Antl. 102, 41; Coquebert, Illustr. Iconogr. 112, Tab. XXV, f. 6; Wiedemann, Dipt. Exot. I, 81, 36; Auss. Zw. I, 170, 89; Harris, Ins. N. Engl. 3^d edit. 602, f. 262; Palisot-Beauvois, Dipt. Tab. II, fig. 6 (doubtful; O. Sacken, Prodrôme etc. II, 448. — Atlantic States; Mexico. (°)).
- Tabanus simulans* Walker, List, etc. I, 182.
- (?) *Tabanus scutellaris* Walker, Dipt. Saunders. 27.
- * *longus* O. Sacken, Prodrôme etc. II, 447; also in the Supplement, 559. — Middle Atlantic States.
- * *ingubris* Macquart, Dipt. Exot. I, 1, 145, 48; O. Sacken, Prodrôme etc. II, 456. — South Carolina.
- Tabanus ater* Palisot-Beauvois, Ins.; Dipt. II, f. 5; Wiedemann, Dipt. Exot. I, 74, 23; Auss. Zw. I, 136, 39 (the latter only *ex parte*).
- * *Megerlei* Wiedemann, Auss. Zw. I, 132, 32 (!); O. Sacken, Prodrôme etc. II, 457. — Florida.

- * **melanocerus** Wiedemann, Auss. Zw. I, 122, 16 (!); O. Sacken, Prodrôme etc. II, 440. — Middle and Southern Atlantic States.
- (?) *Tabanus exæstuanus* Linné, System. Nat. II, 1000, 8; Degeer VI, 229, 8; Tab. XXX, f. 5; Fabricius, Ent. System. IV, 365, 13; System. Antl. 96, 12; Compare also O. Sacken, Prodrôme etc. II, 441. — Surinam.
- * **mexicanus** Linné, System. Nat. II, 1000, 10; Fabricius, Spec. Ins. II, 457, 16; Ent. System. IV, 367, 22; Syst. Antl. 98, 25; Wiedemann, Dipt. Exot. I, 76, 29; Auss. Zw. I, 147, 58; Macquart Dipt. Exot. I, 1, 143, 43; O. Sacken, Prodrôme etc. II, 459. — South Carolina; Florida; Missouri; New Jersey; Mexico; South America.
- Tabanus punctatus* Fabr., Ent. System. IV, 368, 25.
- Tabanus incanis* Fabr., l. c. 26.
- Tabanus ochroleucus* Meigen, System. Besch. II, 62, 41.
- Tabanus olivaceus* Degeer, VI, 230, 6; Tab. XXX, f. 6.
- Tabanus sulphureus* Palisot-Beauvois, Ins. 222, Dipt. Tab. III, f. 3.
- Tabanus flavus* Macquart, Hist. Nat. Dipt. I, 200, 13; Guérin et Percheron, Genera etc. Dipt. II.
- Tabanus viridiflavus* Walker, Newman's Zool. VIII, App. LXVI („fide Walker“, thus quoted by Bellardi, Saggio I, 59).
- * **molestus** Say, Journ. Acad. Phil. III, 31, 1; Compl. Wr. II, 53; Wiedemann, Auss. Zw. I, 125, 21 (!); O. Sacken, Prodrôme etc. II, 438. — Distr. Columbia; Kentucky; Georgia; Missouri.
- * **nigrescens** Palisot-Beauvois, Dipt. Tab. II, f. 2; Wiedemann, Auss. Zw. I, 116, 6 (translation from Palisot); O. Sacken, Prodrôme etc. II, 453. — New York; Massachusetts; New Jersey, Pennsylvania; Maryland; Tennessee; Canada.
- * **nigrovittatus** Macquart, Dipt. Exot. 2^e Suppl., 24, 111; O. Sacken, Prodrôme etc. II, 449. — Massachusetts; Rhode Island; New York; New Jersey.
- * **nivosus** O. Sacken, Prodrôme etc. II, 445. — New Jersey.
- * **Orion** O. Sacken, Prodrôme etc. II, 442. — Canada; Massachusetts; Connecticut.
- * **psammophilus** O. Sacken, Prodrôme etc. II, 445. — Florida.
- * **pumilus** Macquart, Dipt. Exot. I, 1, 146, 51; O. Sacken, Prodrôme etc. II, 448. — Middle and Southern Atlantic States.
- * **Reinwardtii** Wiedemann, Auss. Zw. I, 130 (!); O. Sacken, Prodrôme etc. II, 461. — Northern and Middle Atlantic States; Canada.
- Tabanus erythrochelus* Walker, Ins. Saund. 25; Tab. II, f. 1.
- * **rufus** Palisot-Beauvois, Dipt. Tab. II, f. 1; p. 100; Wiedemann, Auss. Zw. I, 117, 8 (translation of Palisot's description); O. Sacken Prodrôme etc. II, 456 *female*; the *male* is described in the *Supplement*, 559. — South Carolina; Georgia; Florida.
- Tabanus fumipennis* Wiedemann, Auss. Zw. I, 119, 11 (!) *Male*.
- * **sagax** O. Sacken, Prodrôme etc. II, 452. — Illinois, Minnesota.
- * **stygius** Say, Journ. Acad. Phil. III, 33, 3; Compl. Wr. 54; Wiedemann, Auss. Zw. I, 131, 31 (!); O. Sacken, Prodrôme etc. II, 454. — Middle and Southern States.

- ***sulcifrons** Macquart, Dipt. Exot. 5^e Suppl. 33, 127 (!) — Baltimore (Macq.). (⁸²).
- Tabanus tectus* O. Sacken, Prodrôme etc. II, 436. — Pennsylvania.
- ***tener** O. Sacken, Prodrôme etc. II, 440. — Georgia, Florida.
(?) *Tabanus unicolor* Macquart, Dipt. Exot. 2^e Suppl. 22, 107. — Carolina. (⁸⁵).
- ***trijunctus** Walker, List, etc. V, 182; O. Sacken, Prodrôme etc. II, 432. — Florida.
- ***trimaculatus** Palisot-Beauvois, Dipt. Tab. I, f. 5; Wiedemann, Auss. Zw. I, 137, 40 (transl. of Palisot's description; ibid. 132, 33, (Wiedemann's own description, doubtfully identified with Palisot's); Macquart, Dipt. Exot. I, 1, 142; O. Sacken, Prodrôme etc. 439. — Middle and Southern States; Illinois, Kansas.
Tabanus quinquelineatus Macquart, Hist. Nat. Dipt. I, 200, 11.
- ***turbidus** Wiedemann, Auss. Zw. I, 124, 20 (!); O. Sacken, Prodrôme etc. II, 430. — Georgia, Kentucky. (⁸⁴).
- (?) *Tabanus fusconerosus* Macquart, Dipt. Exot. I, 1, 147, 52 (no locality).
- ***variegatus** Fabricius, Syst. Antl. 95, 10; Wiedemann, Dipt. Exot. I, 67, 11; Auss. Zw. I, 120, 13; O. Sacken, Prodrôme etc. II, 437. — Middle States. (⁸⁶).
- ***venustus** O. Sacken, Prodrôme etc. II, 444. — Northern Texas; Kansas.
- ***vivax** O. Sacken, Prodrôme etc. II, 446. — Trenton Falls, New York; Maine.
(?) *Tabanus marginalis* Wiedemann, Auss. Zw. I, 166, 84. (⁸⁷).
- ***Wiedemanni** O. Sacken, Prodrôme etc. II, 455; Suppl. 559. — Florida; Georgia; Cumberland Gap, Ky.
Tabanus ater Wiedemann (non Palisot-Beauvois), Auss. Zw. I, 136, 39 (ex parte; non Dipt. Exot.).
- ***punctifer** O. Sacken, Prodrôme etc. II, 453; Western Diptera, 220. — Colorado Mts.; Yellowstone; Utah; Sonora; California.
- ***aegrotus** O. Sacken, Western Diptera etc., 219. — California (Marin Co.).
- ***albiscutellatus** Macquart, Dipt. Exot. 4^e Suppl. 34, 107, Tab. II, f. 9. — Mexico.
- ***albonotatus** Bellardi, Saggio, etc. I, 56; Tab. II, f. 5. — Mexico; Tampico.
- alteripennis** Walker, Trans. Ent. Soc. N. Ser. V, 274. — Mexico.
- aurantiacus** Bellardi, Saggio, etc. I, 67; Tab. II, f. 9. — Mexico.
- Bigoti** Bellardi, Saggio, etc. I, 59. — Mexico.
- Tabanus apicalis* Macquart, Dipt. Exot. 2^e Suppl. 20. [Bellardi].
- bipartitus** Walker, List, etc. I, 158. — Honduras.
- caliginosus** Bellardi, Saggio, etc. I, 68, Tab. II, f. 10. — Mexico.
- carneus** Bellardi, Saggio, etc. I, 62. — Mexico.
- circumfusus** Wiedemann, Auss. Zw. II, 624, 21. — Mexico.
- commixtus** Walker, Trans. Ent. Soc. N. Ser. V, 273. — Mexico.
- completus** Walker, List, etc. I, 185. — St. Thomas.

- De filippii** Bellardi, Saggio, etc. I, 57. - Mexico.
dorsifer Walker, Trans. Ent. Soc. N. Ser. V, 273. - Mexico.
ferrifer Walker, Dipt. Saund. I, 30. - West Indies.
lucidulus Walker, List, etc. I, 188. - Jamaica.
luteo-flavus Bellardi, Saggio, etc. I, 60. - Mexico.
longiappendiculatus Macquart, Dipt. Exot. 5^e Suppl. 32, 125, - Honduras.
obliquus Walker, Dipt. Saund. I, 28. - West Indies.
propinquus Bellardi, Saggio, etc. I, 65. - Mexico.
purus Walker, Trans. Ent. Soc. N. Ser. V, 274. - Mexico.
quinquevittatus Wiedemann, Dipt. Exot. I, 84, 39; Auss. Zw. I, 173, 93; Bellardi, Saggio, etc. I, 65. - Mexico. (^{ss}).
oculus Walker, List, etc. I, 157. - Honduras, Columbia.
parallelus Walker, List, etc. I, 187. - West Indies.
parvidentatus Macquart, Dipt. Exot. I, 1, 142, 40; Walker, List, etc. V, 189. - West Indies.
rubescens Bellardi, Saggio, etc. App. 15. - Mexico.
rufiventris Macquart, Dipt. Exot. I, 1, 141, 39; Walker, List, etc. I, 180; Bigot, R. de la Sagra, 798. - Cuba, Jamaica.
Sallei Bellardi, Saggio, etc. I, 61; Tab. II, f. 7. - Mexico.
stigma Fabricius, Syst. Antl. 104, 50; Wiedemann, Dipt. Exot. I, 92, 53; Auss. Zw. I, 180, 104. - South America and St. Thomas (Wied.).
subsimilis Bellardi, Saggio, etc. 66. - Mexico.
subtilis Bellardi, Saggio, etc. App. 14; f. 9. - Mexico.
subruber Bellardi, Saggio, etc. I, 55. - Mexico.
Tabanus ruber Macquart, Dipt. Exot. 1^{er} Suppl. 42, 87 (change of name by Bellardi).
Sunichrasti Bellardi, Saggio, etc. I, 56. - Mexico.
tinetus Walker, Dipt. Saund. 29. - West Indies.
trilineatus Latreille, Humb. et Bompl. Rec. d'Obs. de Zool. fasc. X, 116—117; Tab. XI, f. 6; Wiedemann, Dipt. Exot. I, 84; Auss. Zw. I, 168; Bellardi, Saggio, etc. I, 63. - Mexico.
Truquii Bellardi, Saggio, etc. 64; Tab. II, f. 6. - Mexico.

Observation. The following species, the descriptions of which are unrecognizable, have not been included in the above lists:

Linné: *Tabanus calvus*, System. Nat. II, 1000, 6.

Palisot-Beauvois: *T. ferrugineus, nebulosus, pallidus, palpinus*.

Macquart: *Tabanus nanus* Dipt. Exot. Suppl. 1, 42, 88. - Texas. The name is preoccupied by Wiedemann for an african species. About the possible synonymy compare my Prodrôme II, 445.

Tabanus dorsotatus Dipt. Exot. 2^e Suppl. 22, 106. - Carolina. In Mr. Bigot's collection I found a *Tab. dorsomaculatus* from Carolina, with a label in Macquart's handwriting, which I take to be this species. It is an unrecognizable specimen, which has evidently been mouldy and washed with some liquid afterwards. The name be better dropped.

Tabanus Novae Scotiae Dipt. Exot. 2^e Suppl. 24, 110. In Mr. Bigot's collection; the type is a female, not unlike a small *T. Actaeon*, the abdominal triangles however have a golden-yellow pubescence.

Walker: *T. comes* List, etc. V, 173. (Synon. *Tab. incitus* List, etc. I, 172.) - British Possessions.

- T. confusus*, List, etc. I, 147. — Georgia.
T. conterminus Dipt. Saund. 24. — United States.
T. deivatus List, etc. I, 151. — North America.
T. duplex List, etc. V, 173 (Synom. *T. imitans*, List, etc. I, 173. — Huds. B. Terr.
T. frontalis List, etc. I, 172. — Nova Scotia.
T. fulvofrater List, etc. I, 181. — Illinois.
T. incisus Dipt. Saund. 26. — Cap. Breton.
T. intermedius List, etc. I, 173. — Huds. B. Terr.
T. leucomelas List, etc. I, 175. — Georgia.
T. mutatus Dipt. Saund. I, 23. — United States.
T. patulus List, etc. I, 175. — Georgia.
T. proximus List, etc. I, 147. — Florida.
T. rufofrater Dipt. Saund. I, 26. — Georgia.
T. scitus List, etc. I, 181. —

Some remarks about these species will be found in O. Sacken, *Prodrome* etc. II, 472—474. In the notes, which I took at the Brit. Mus. I remarked that *Tab. patulus* and *deivatus* are unknown to me.

Mr. Walker's identifications of the species of other authors are very often incorrect, and hence the comparisons to such species, occurring in his descriptions, are not to be relied on. Thus *T. b. melanocerus* Wied., *bicolor* Wied., *abdominalis* Fabr. etc. were incorrectly identified by him in the Brit. Museum.

Atylotus.

O. Sacken, *Prodrome* etc. II, 426, 1876; definition amended in the *Western Diptera*, 215.

**bicolor* Wiedemann, Dipt. Exot. I, 96, 58 (*Tabanus*); Auss. Zw. I, 118, 115 (♂) *id.*; O. Sacken, *Prodrome* etc. II, 460. — New York; Pennsylvania; Illinois; Canada.

Tabanus ruficeps Macquart, Dipt. Exot. 5^e Suppl. 35, 130 *male* [?]

Tabanus fulvescens Walker, List, etc. I, 171; O. Sacken, *Prodrome* etc. 460. — Massachusetts; Canada. ⁸⁹).

**insuetus* O. Sacken, *Western Diptera* etc., 219. — Webber Lake; Sierra Nevada; Cal.

(?) *Craverii* Bellardi, *Saggio*, etc. I, 60 (*Tabanus*). — Mexico. ⁹⁰).

FAMILY LEPTIDAE.

SECTION I. PSAMMORYCTERINA. ⁽⁹¹⁾.

Triptotricha.

Loew, *Centur.* X, 15; *id.* Berl. Ent. Z. 1874, 331, note.

**fasciventris* Loew, Berl. Ent. Z., 1874, 330. — Pennsylvania.

**rufithorax* Say, J. Acad. Phil. III, 36, 5; Compl. Wr. II, 56 (*Leptis*); Wiedemann, Auss. Zw. I, 223 (*id.*). — Pennsylvania; New York; Kentucky.

**discolor* Loew, Berl. Ent. Z. 1874, 379. — San Francisco.

**lauta* Loew, *Centur.* X, 15; compare also Berl. Ent. Z. 1874, 332. — California.

Pheneus.

Walker, Dipt. Saund. 155; 1856.

tibialis Walker, Dipt. Saund. 156, Tab. IV, f. 3. — Jamaica.

Observation. Mr. Walker refers this genus to the Asilidae. I place it here on the authority of Mr. Loew (*in litt.*).

SECTION II. LEPTINA.**Chrysopila.**

Macquart, Dipt. du nord de la France; 1827.

***basilaris** Say, J. Acad. Phil. III, 36, 4; Compl. Wr. II, 55 (*Leptis*); Wiedemann, Auss. Zw. I, 228, 16 (*id.*). — Pennsylvania.

***fasciata** Say, J. Acad. Phil. III, 37, 7; Amer. Entom. Tab. XIII (*Leptis*); Compl. Wr. I, 28; Wiedemann, Auss. Zw. I, 225, 9 (*id.*) — Middle and Northern States.

Leptis par Walker, List, etc. I, 215.

***foeda** Loew, Centur. I, 18. — Illinois.

***modesta** Loew, Centur. X, 14. — Texas.

***ornata** Say, J. Acad. Phil. III, 34, 1; Compl. Wr. II, 54; Amer. Ent. Tab. XIII (*Leptis*); Wiedemann, Auss. Zw. I, 221, 1 (*id.*); Walker, List, etc. I, 213 (re-described, the identification being doubtful). — Atlantic States (common).

propinqua Walker, List, etc. I, 215. — Trenton Falls.

Leptis simillima Walker, List, etc. I, 215. — Trenton Falls (♂; synonymy by Walker with a doubt).

***proxima** Walker, List, etc. I, 214. — Northern States and British Possessions.

***quadrata** Say, J. Acad. Phil. III, 35, 3; Compl. Wr. II, 55 (*Leptis*); Wiedemann, Auss. Zw. I, 226, 11 (*id.*). — North America (common).

Leptis funipennis Say, J. Acad. Phil. III, 37, 6; Compl. Wr. II, 56; Wiedemann, Auss. Zw. I, 227, 12 (*id.*); Walker, List, etc. I, 217 (♂).

Leptis reflexa Walker, List, etc. I, 216 (♀).

Chrysopila dispar v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 143; Tab. IV, f. 6—11.

***rotundipennis** Loew, Centur. I, 19. — Georgia.

Servillei Guérin, Iconogr. etc., Texte III, 541; Tab. XCVI, f. 3 (*Leptis*). — North America.⁽⁹²⁾

***thoracica** Fabricius, System. Antl. 70, 4 (*Leptis*); Wiedemann, Auss. Zw. I, 222, 2 (*id.*); Macquart, Dipt. Exot. II, 1, 32; Tab. III, bis, f. 3. — Eastern North America common.

***velutina** Loew, Centur. I, 17. — Illinois, Kentucky.

***humilis** Loew, Berl. Ent. Z. 1874, 379; O. Sacken, Western Diptera, 223 (translation of Dr. Loew's description). — San Francisco.

basalis Walker, Trans. Ent. Soc. N. Ser. V, 285. — Mexico.

- ***ludens** Loew, Wien. Entom. Mon. V, 34. — Cuba.
mexicana Bellardi, Saggio, etc. II, 96. — Mexico.
nigra Bellardi, Saggio, etc. App. 27. — Mexico.
trifasciata Walker, Trans. Ent. Soc. N. Ser. V, 234. — Mexico.

Leptis.

Fabricius, System. Antl. 69, 1805.

- ***albicornis** Say, J. Acad. Phil. III, 38, 9; Compl. Wr. II, 56; An er.
 Entom. Tab. XIII; Compl. Wr. I, 27; Wiedemann, Auss. Zw. I,
 223. — Pennsylvania; South Carolina (M. C. Z.).
Boscii Macquart, Dipt. Exot. II, 1, 30, 2. — Carolina.
 ***dimidiata** Loew, Centur. III, 17. — Sitka.
 ***hirta** Loew, Centur. I, 21. — Illinois.
intermedia Walker, List, etc. I, 212 (*Rhagio*). — Huds. B. Terr.
 ***mystacea** Macquart, Dipt. Exot. II, 1, 30, 1; Tab. III, bis, f. 2;
 Walker, List, etc. I, 212 and IV, 1153 (*Rhagio*), re-described, the
 identification being doubtful. — Eastern North America (not rare).
 ***ochracea** Loew, Centur. II, 3. — New York.
 ***punctipennis** Say, J. Acad. Phil. III, 34, 2; Compl. Wr. II, 55;
 Wiedemann, Auss. Zw. I, 227. — Middle and Northern States
 (common).
Atherix filia Walker, List, etc. I, 219. (³).
 ***plumbea** Say, J. Acad. Phil. III, 39, 10; Compl. Wr. II, 56; Wiede-
 mann, Auss. Zw. I, 228. — Middle States.
Leptis griseola v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 142, Tab. IV,
 f. 5. [Loew, Zeitschr. f. Ges. Naturw. 1870, 115].
 ***terminalis** Loew, Centur. I, 20. — New York.
 ***scapularis** Loew, Centur. I, 22. — Illinois, New York, Distr. Columbia.
vertebrata Say, J. Acad. Phil. III, 38, 8, Amer. Ent. Tab. XIII;
 Compl. Wr. I, 27. — Florida.

***costata** Loew, Centur. II, 4; O. Sacken, Western Dipt., 223. — California.

***incisa** Loew, Centur. X, 16; O. Sacken, Western Dipt., 223. — California.

bitaeniata Bellardi, Saggio, etc. App. 26, f. 14. — Mexico.

cinerea Bellardi, Saggio etc. II, 95. — Mexico. (⁴).

polytaeniata Bellardi, Saggio, etc. App. 27, 13. — Mexico.

Ptiolina.

Zetterstedt, Dipt. Scand. I, 226; 1843; compare also Frauenfeld, Verh.
 Z. B. Ges. 1867, 495.

fasciata Loew, Centur. IX, 65. — British North America.

***majuscula** Loew, Centur. IX, 66. — British North America.

Atherix.

Meigen, Illiger's Magaz. II, 271; 1803.

***variegata** Walker, List, etc. I, 128. — Northern States and British
 Possessions.

* *vidua* Walker, List, etc. IV, 1153. -- Huds. B. Terr.

* *varicornis* Loew, Centur. X, 13. — California.

latipennis Bellardi, Saggio, etc. II, 93. — Mexico.

longipes Bellardi, Saggio, etc. II, 94; Tab. II, f. 17. — Mexico.

Spania.

Meigen, System. Besch. VI, 335; 1830.

edeta Walker, List, etc. III, 489. — Huds. B. Terr. (⁹⁵).

Glutops.

E. Burgess, Proc. Boston Soc. N. Sc. 1878, 320, with figures. (⁹⁶).

singularis Burgess, l. c. — Springfield, Mass.

FAMILY ASILIDAE. (⁹⁷).

SECTION I. DASYPOGONINA.

DIVISION A. — FRONT TIBIAE WITHOUT SPURS.

Leptogaster.

Meigen, Illiger's Magaz. 1803; *Gonypes* Latr. 1804.

* *badius* Loew, Centur. II, 6. — Illinois.

* *brevicornis* Loew, Centur. X, 23. — Texas.

carolinensis Schiner, Verh. Z. B. Ges. 1866, 696. — Carolina.

Gonypes nitidus Macquart, Dipt. Exot. I, 2, 155. (⁹⁴).

* *eudiceranus* Loew, Berl. Ent. Z. 1874, 353. — Texas.

* *favillaceus* Loew, Centur. II, 12. — Connecticut.

* *flavipes* Loew, Centur. II, 15. — Atlantic States (not rare).

(?) *Leptogaster flavicornis* v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 1:6; Wisconsin. [Loew in Zeitschr. für ges. Naturw. XXXVI, 120.]

* *incisularis* Loew, Centur. II, 11. — Illinois.

* *histrio* Wiedemann, Anss. Zw. I, 535, 5. — Pennsylvania.

Leptogaster annulatus Say, J. Acad. Phil. III, 75, 1; Compl. Wr. II, 68. [Change of name by Wiedemann.]

* *murinus* Loew, Centur. II, 9. — Nebraska.

ochraceus Schiner, Verh. Z. B. Ges. 1867, 359. — Pennsylvania.

* *pictipes* Loew, Centur. II, 7. — Illinois.

* *tenuipes* Loew, Centur. II, 14. — District Columbia.

* *testaceus* Loew, Centur. II, 10. — New York.

* *varipes* Loew, Centur. II, 8. — Distr. Columbia.

cubensis Bigot, R. de la Sagra's Hist. etc. 792 (*Gonypes*). — Cuba.

ferrens Wiedemann, Auss. Zw. II, 646. — Mexico.

* *obscuripes* Loew, Centur. II, 13. — Cuba.

Leptogaster Ramoni Jaennicke, Neue Exot. Dipt. 46. [Loew].

Truquii Bellardi, Saggio, etc. II, 87; Tab. II, f. 18. — Mexico.

Ceraturgus.

Wiedemann, *Analecta*, 12, 1824; *Auss. Zw. I*, 414; 1828.

aurulentus Fabricius, *System. Antl.* 166, 11 (*Dasyopogon*); Wiedemann, *Dipt. Exot. I*, 228, 26 (*id.*); *Analecta etc.* 12; *Auss. Zw. I*, 414, 1, *Tab. V*, f. 5; Macquart, *Hist. Nat. Dipt. I*, 239, 1; *Tab. VII*, f. 4 (*head*). — New York (Fab.).

* **cruciatus** Say, *J. Acad. Phil. III*, 52, 6; *Compl. Wr. II*, 66 (*Dasyopogon*), *female*; Wiedemann, *Auss. Zw. I*, 381, 24 (*id.*). — Arkansas (Say); New York.

Ceraturgus fasciatus Walker, *List, etc. II*, 367, *male* [Loew *Beschr. Eur. Dipt. III*, 124].

Dasyopogon cornutus Wiedemann, *Auss. Zw. I*, 382 (Without locality); I saw the type in Vienna.

* **lobicornis** O. Sacken, *Western Diptera*, 287. — Idaho, California.

dimidiatus Macquart, *Dipt. Exot. 2^e Suppl.* 35, 56 (*Dasyopogon*); Walker, *List, etc. VI*, 428; Bellardi, *Saggio, etc. II*, 61 (*Ceraturgus*). — Mexico.

rufipennis Macquart, *Dipt. Exot. 2^e Suppl.* 32, 2; Bellardi, *Saggio, etc. II*, 59. — Mexico.

vitripennis Bellardi, *Saggio, etc. II*, 60. — Mexico (can hardly be a *Ceraturgus*).

Observation. For *Cerat. niger* Macquart see *Taracticus*. (⁹⁹).

Dioctria.

Meigen, *Illiger's Magaz.*; 1803.

* **Albus** Walker, *List, etc. II*, 301. — New York, Massachusetts, etc.; California (? see O. Sacken, *Western Diptera*, 287).

* **resplendens** Loew, *Centur. X*, 21. — California.

* **pusio** O. Sacken, *Western Diptera*, 238. — California.

Echthodopa.

Loew, *Centur. VII*, 27, 1866; Compare also Loew's *Beschr. Eur. Dipt. II*, 78, *observ.*

* **formosa** Loew, *Centur. X*, 22. — Pennsylvania.

* **pubera** Loew, *Centur. VII*, 27. — Nebraska.

Plesiomma.

Macquart, *Dipt. Exot. I*, 2, 54; 1838.

* **unicolor** Loew, *Centur. VII*, 35. — Pecos River, Western Texas and New Mexico.

* **funesta** Loew, *Wien. Ent. Mon. V*, 35; *Centur. VII*, 31. — Cuba.

Dioctria lugubris Jeennicke, *Neue Exot. Dipt.* 48. — Cuba (Loew in litt.).

* **indecora** Loew, *Centur. VII*, 33. — Cuba.

- ***leptogastra** Loew, Centur. VII, 32. — Cuba
 ***lineata** Fabricius, Spec. Ins. II, 465, 28; Entom. System. 386, 47 (*Asilus*); System. Antl. 167, 13; Wiedemann, Dipt. Exot. I, 221, 12 (*Dasympogon*); Auss. Zw. I, 385, 29 (*id.*); (?) Schiner, Verh. Zool. Bot. Ges. 1867, 374. — West Indies (St. Thomas; Loew *in litt.*).
longiventris Schiner, Verh. Zool. Bot. Ges. 1867, 375. — Cuba.
macra Loew, Wien. Ent. Monatschr. V, 35; Centur. VII, 34. — Cuba.

Microstylum.

Macquart, Dipt. Exot. I, 2, 26; 1838.

- ***galactodes** Loew, Centur. VII, 44. — Pecos River, Western Texas; Kansas.
 ***morosum** Loew, Centur. X, 27. — Dallas, Texas. (¹⁰⁰).

Ospriocerus.

Loew, Centur. VII, 51, 1866.

- ***Aeacus** Wiedemann, Auss. Zw. I, 390 (*Dasympogon*); O. Sacken, Western Diptera, 290. — Nebraska; Colorado.
Dasympogon abdominalis Say, Long's Exped. App. 375; Compl. Wr. I, 255 [Change of name by Wied.].
 (?) *Dasympogon spathulatus* Bellardi, Saggio, etc. II, 82; Tab. I, f. 9; [Loew, Centur. VII, 51]. — Mexico.
 ***eutrophus** Loew, Berl. Ent. Z. 1874, 355. — Texas; Kansas.
 ***Rhadamanthus** Loew, Centur. VII, 52. — Pecos River, Western Texas.
 ***Minos** O. Sacken, Western Diptera, 291. — Colorado.
 ***Aeacides** Loew, Centur. VII, 51. — California.

Ablautatus.

Loew, Berl. Ent. Z. 1874, 377; O. Sacken, Western Diptera, 289.
Ablautus, Loew, Centur. VII, 63, 1866.

- ***trifarius** Loew, Centur. VII, 63. — California.
 ***mimus** O. Sacken, Western Diptera, 289. — San Bernardino, Cal.

Stenopogon.

Loew, Linn. Entom. II, 453; 1847.

- ***consanguineus** Loew, Centur. VII, 48. — Nebraska.
 ***inquinatus** Loew, Centur. VII, 47. — Nebraska.
 ***latipennis** Loew, Centur. VII, 49. — Pecos River, Western Texas („May 28“).
 ***longulus** Loew, Centur. VII, 50. — Pecos River, Texas.
 ***modestus** Loew, Centur. VII, 46. — Red River of the North.
subulatus Wiedemann, Auss. Zw. I, 375, 14 (*Dasympogon*); Walker, List, etc. I, 311 and VI, 422 (*id.*). — Georgia.
 ***breviusculus** Loew, Centur. X, 28. — California.
 ***gratus** Loew, Centur. X, 31. — California.

- Stenopogon univittatus* Loew, Centur. X, 29, ♀ [Synonymy suggested by Mr. Loew himself in Berl. Ent. Z. 1874, 358].
 * *obscuriventris* Loew, Centur. X, 30. — California.
 * *morosus* Loew, Berl. Ent. Z. 1874, 356. — Sierra Nevada, Cal.
 * *californiae* Walker, List, etc. II, 322 (*Dasympogon*). — California.

Scleropogon.

- Loew, Centur. VII, 45; 1866.
ochraceus v. d. Wulp, Tijdschr. Ent. 2^d Ser. V, 212; Tab. IX, f. 6 (*Stenopogon*). — North America. (¹⁰¹).
 * *picticornis* Loew, Centur. VII, 45. — California.
 * *helvolus* Loew, Berl. Ent. Z. 1874, 355. — Texas.

Truquii Bellardi, Saggio, etc. II, 76; Tab. I, f. 10 (*Stenopogon*?). — Mexico.

Sphageus.

- Loew, Centur. VII, 55; 1866.
 * *chalcoproetus* Loew, Centur. VII, 55. — Cuba.

Dicolonus.

- Loew, Centur. VII, 56; 1866.
 * *simplex* Loew, Centur. VII, 56. — California.

Archilestris.

- Loew, Berl. Ent. Z. 1874, 377; *Archilestes*, Schiner, Verh. Z. B. Ges. 1866, 672; id. Novara, 168. (¹⁰²).
 * *magnificus* Walker, List, etc. VI, 427 (*Dasympogon*); Bellardi, Saggio, etc. II, 79; Tab. I, f. 11 (*Microstylus*). — Mexico.

Dizonias.

- Loew, Centur. VII, 53; 1866.
 * *bicinctus* Loew, Centur. VII, 54. — Pecos River, Western Texas; Dallas, Texas; Florida.
Dasympogon tristis Walker, Dipt. Saund. 93. (¹⁰³). — United States.
Dasympogon quadrimaculatus Bellardi, Saggio, etc. II, 80; Tab. I, f. 8. — Mexico.
 * *phoenicurus* Loew, Centur. VII, 53. — Tamaulipas, Mexico.
Lucasi Bellardi, Saggio, etc. II, 81; Tab. I, f. 7 (*Dasympogon*). — Mexico.

Callinicus.

- Loew, Centur. X, 32; 1872.
 * *calcanens* Loew, Centur. X, 32. — Marin and Sonoma Co., California.

Anisopogon.

- Loew, Berl. Ent. Z. 1874, 377; *Heteropogon* Loew, Linn. Ent. II, 488, 1847.
 * *gibbus* Loew, Centur. VII, 58 (*Heteropogon*). — Pennsylvania.

- Dasypogon macerinus* Walker, List, etc. II, 356. — Trenton Falls.
 **lautus* Loew, Centur. X, 34 (*Heteropogon*). — Texas.
 **phoenicurus* Loew, Centur. X, 33 (*Heteropogon*). — Texas.
humilis Bellardi, Saggio, etc. II, 77 (*Heteropogon*). — Mexico.

Cyrtopogon.

Loew, Linn. Ent. II, 516; 1847. (¹⁰⁴).

- **bimacula* Walker, Dipt. Saund., 102, Tab. 4, f. 1; (*Euarmostus* n. gen.).
Male. — Huds. B. Terr.; White Mts., N. H.
Dasypogon melanopleurus Loew, Centur. VII, 61 [Loew, Berl. Ent. Z. 1874, 365, Note 2^d]. *Female*.
 **chrysopogon* Loew, Centur. VII, 59. — New England and Canada.
 (?) *Dasypogon Falto* Walker, List, etc. II, 355. — Nova Scotia.
 **lutatus* Walker, List, etc. II, 357 (*Dasypogon*). — Nova Scotia (Walk.); Western New York; Massachusetts. (¹⁰⁵).
 **lyratus* nov. sp., see the note (¹⁰⁵). — Catskill Mts., New York; White Mts., N. H.
 **marginalis* Loew, Centur. VII, 60; compare also Berl. Ent. Z. 1874, 365, Note 2^d. — Massachusetts, Canada.
 **aurifex* O. Sacken, Western Dipt., 300. — Sierra Nevada, Cal.
 **callipedilus* Loew, Berl. Ent. Z. 1874, 358; O. Sacken, Western Diptera, 296. — Sierra Nevada, Cal.
 **cerussatus* O. Sacken, Western Diptera, 308. — Sonoma Co., Cal.
 **eretaceus* O. Sacken, Western Diptera, 302. — Sierra Nevada, Cal.
 **cymbalista* O. Sacken, Western Diptera, 297. — Sierra Nevada, Cal.
 **evidens* O. Sacken, Western Diptera, 306. — Sierra Nevada, Cal.
 **leucozonus* Loew, Berl. Ent. Z. 1874, 364; O. Sacken, Western Diptera, 299. — Sierra Nevada, Cal.
 **longimanus* Loew, Berl. Ent. Z. 1874, 360; O. Sacken, Western Diptera, 303. — Marin Co., Cal.
 **montanus* Loew, Berl. Ent. Z. 1874, 362; O. Sacken, Western Diptera, 298. — Sierra Nevada, Cal.
 **nugator* O. Sacken, Western Diptera, 307. — Sierra Nevada, Cal.
 (?) **nebulosus* O. Sacken, Western Diptera, 309. — Sierra Nevada, Cal.
 **plausor* O. Sacken, Western Diptera, 297. — New Mexico; Utah; Idaho.
 **profusus* O. Sacken, Western Diptera, 305. — Northern New Mexico.
 **princeps* O. Sacken, Western Diptera, 302. — Sierra Nevada, Cal.
 **positivus* O. Sacken, Western Diptera, 307. — Sierra Nevada, Cal.
 **rattus* O. Sacken, Western Diptera, 308. — Sierra Nevada, Cal.
 **rejeetus* O. Sacken, Western Diptera, 307. — Sierra Nevada, Cal.
 **sudator* O. Sacken, Western Diptera, 307. — Sierra Nevada, Cal.

Pycnopogon.

Loew, Linn. Ent. II, 526; 1847.

- **cirrhatus* O. Sacken, Western Diptera, 293. — Mariposa Co., Cal.

Holopogon.

Loew, Linn. Ent. II, 473; 1847.

- **guttula* Wiedemann, Dipt. Exot. I, 228, 27 (*Dasyopogon*); Auss. Zw. I, 411, 74 (*id.*); Walker, List, etc. II, 355 (description given, the identification having appeared doubtful). — Atlantic States.
- philadelphicus* Schiner, Verh. Zool. Bot. Ges. 1867, 360; compare also Loew, Berl. Ent. Z. 1874, 367, note. — Philadelphia.
- **phaeonotus* Loew, Berl. Ent. Z. 1874, 366. — Texas.
- **seniculus* Loew, Centur. VII, 62. — Nebraska.

Daulopogon.

Loew, Berl. Ent. Z. 1874, 377; *Lasiopogon* Loew, Linn. Ent. II, 508; 1847.

- **opaculus* Loew, Berl. Ent. Z. 1874, 367. — Illinois.
- **tetragrammus* Loew, Berl. Ent. Z. 1874, 368. — Canada.
- **arenicola* O. Sacken, Western Diptera, 310. — San Francisco, Cal.
- **bivittatus* Loew, Centur. VII, 57 (*Lasiopogon*; compare also Loew, Berl. Ent. Z. 1874, 370, note). — California.

Psilocurus.

Loew, Berl. Ent. Z. 1874, 373, note.

- **nudiusculus* Loew, Berl. Ent. Z. 1874, 370. — Texas.

Stichopogon.

Loew, Linn. Ent. II, 500; 1847.

- **argenteus* Say, J. Acad. Phil. III, 51, 4; Compl. Wr. II, 65 (*Dasyopogon*); Wiedemann Auss. Zw. I, 409, 69 (*id.*). — Atlantic States (not rare on sea-beaches).
- **trifasciatus* Say, J. Acad. Phil. III, 51, 3; Compl. Wr. II, 64 (*Dasyopogon*). — Atlantic States; common.
- Therera plagiata* Harris, Cat. Ins. Mass. Walker, List, etc. I, 223 (description given). (!)
- candidus* Macquart, Dipt. Exot. Suppl. I, 67, 48 (*Dasyopogon*); Bellardi, Saggio, etc. II, 78. — Vera Cruz, Mexico.
- Dasyopogon gelascens* Walker, Trans. Ent. Soc. N. Ser. V, 277 [Bellardi].
- Dasyopogon fasciventris* Macquart, Dipt. Exot. 4^e Suppl. 69, 75; Tab. VI, f. 13. [Bellardi, l. c. 79, states on Bigot's authority that this is only a variety of *S. candidus* Macq. The original specimen is in M. Bigot's collection.]

Holcocephala.

Jaennicke, Neue Exot. Dipt. 51, 1867 (instead of *Discocephala* Macquart Dipt. Exot. I, 2, 50, 1838, which is preoccupied. Loew adopts this change in Berl. Ent. Z. 1874, 377).

- **abdominalis* Say, J. Acad. Phil. III, 50, 2; Compl. Wr. II, 64, (*Dasy-*

- poçor*): Wiedemann Auss. Zw. I, 412, 75 (*id.*). — Atlantic States (not rare in damp situations).
Discocephala rufiventris Macquart, Dipt. Exot. I, 2, 50, 1; Tab. IV, f. 2. — Carolina; Brazil.
Dasyopogon Acta Walker, List, etc. II, 362.
Dasyopogon laticeps v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 137; Tab. III, 10—16. [Loew, Z. f. Ges. Naturw. Vol. XXXVI, 115.]
**calva* Loew, Centur. X, 35 (*Discocephala*). — Texas (Loew); Western New York (M. C. Z.).
affinis Bellardi, Saggio, etc. II, 86, Tab. I, 13 (*Discocephala*). — Mexico.
delfoidea Bellardi, Saggio, etc. II, 85; Tab. I, f. 12 (*Discocephala*). — Mexico.
divisa Walker, Trans. Ent. Soc. N. Ser. V, 279 (*Discocephala*). — Mexico.
interlineata Walker l. c. 279 (*Discocephala*). — Mexico.
longipennis Bellardi, Saggio, etc. II, 86; Tab. I, f. 14 (*Discocephala*). — Mexico.
minuta Bellardi l. c. 83 (*Discocephala*). — Mexico.
nitida Wiedemann, Auss. Zw. II, 503 (*Dasyopogon*); Walker, List, etc. VI, 503 (*Dasyopogon*); Bellardi l. c. 84 (*Discocephala*). — Mexico.

DIVISION B. FRONT TIBIAE WITH A SPUR AT THE TIP

Nicocles.

- Jaennicke, Neue Exot. Dipt. 47, 1867; *Pygostolus* Loew, Centur. VII, 28; this name as preoccupied, is given up by Loew, Centur. X, 24, Nota.
**pictus* Loew, Centur. VII, 30 (*Pygostolus*). — Distr. Columbia.
Discocephala Amastris Walker, List, etc. II, 362. — Georgia.
**politus* Say, J. Acad. Phil. III, 52, 5; Compl. Wr. II, 65 (*Dasyopogon*) *female*; Wiedemann, Auss. Zw. I, 405, 63 (*id.*); — Walker, List, etc. VI, 421 (*id.*). — Pennsylvania, Maryland (Say); Massachusetts (O. S.).
Pygostolus argentifer Loew, Centur. VII, 28; *male*. [Loew *in litt.*]
**acmulator* Loew, Centur. X, 25 (*Pygostolus*). — California.
**dives* Loew, Centur. VII, 29 (*Pygostolus*). — California (Sonoma Co.).
analis Jaennicke, Neue Exot. Dipt. 47; Tab. I, 13. — Mexico.

Clavator.

- Philippi, Verh. Zool. Bot. Ges. 1865, 699; Tab. 26, f. 31.
 O. Sacken, Western Dipt., 291.
**sabulonum* O. Sacken, Western Dipt., 292. — San Bernardino, Cal.

Blacodes.

- Loew, Berl. Ent. Z. 1874, 377; *Blax*, Centur. X, 24; 1872.
**bellus* Loew, Centur. X, 24 (*Blax*). — Texas.

Taracticus.

Loew, Centur. Vol. II. 240, Nota; 1872.

- ***octopunctatus** Say, J. Acad. Phil. III, 49; Compl. Wr. II, 63 (*Dioctria*); Wiedemann, Auss. Zw. I, 365 (*id.*); Walker, List, etc. VI, 387 (*id.*). — Atlantic States.
niger Macquart, Dipt. Exot. I, 2, 25; Tab. II, f. 1 (*Ceraturgus*). — North America (Macq.); Mexico (Walker, List, etc. VI, 378).

Diogmites.

Loew, Centur. VII, 36, 1866; *Deromyia* Philippi 1865 (?).⁽¹⁰⁶⁾

- angustipennis** Loew, Centur. VII, 41. — Kansas; Matamoras; Mexico.
 ***discolor** Loew, Centur. VII, 37. — Pennsylvania.
 (?) *Dasygogon rufescens* Macquart, Hist. Nat. Dipt. I, 295, 8; Walker, List, etc. VI, 426. — Philadelphia. ⁽¹⁰⁷⁾
 ***hypomelas** Loew, Centur. VII, 42. — Pecos River, New Mexico.
 ***misellus** Loew, Centur. VII, 39. — Distr. Columbia.
 ***platypterus** Loew, Centur. VII, 36. — Illinois.
 ***symmachus** Loew, Centur. X, 26. — Texas.
 ***umbrinus** Loew, Centur. VII, 43. — New York, Massachusetts, Illinois.
Dasygogon basalis Walker, Dipt. Saund., 95. — Atlantic States. ⁽¹⁰⁾
Dasygogon Heremitus Walker, List, etc. II, 339. — Cincinnati.
 ***annulatus** Bigot, R. de la Sagra, etc. 789; Tab. XX, f. 3 (*Senobasis*). — Cuba. ⁽¹⁰⁸⁾
Dasygogon scabillis Walker, Trans. Ent. Soc. N. Ser. V, 276; Bellardi, Saggio, etc. II, 63; Tab. I, f. 4 (*Saropogon*?). — Mexico [Loew *in litt.*].
Senobasis auricinctus Schiner, Verh. Zool. Bot. Ges. 1867, 371. — Surinam [Loew *in litt.*].
affinis Bellardi, Saggio, etc. II, 73 (*Saropogon*). — Mexico.
bicolor Jaennicke, Neue Exot. Dipt. 49 (*Saropogon*). — Panama.
Bigotii Bellardi, Saggio, etc. II, 70 (*Saropogon*). — Mexico.
 ***bilineatus** Loew, Centur. VII, 40. — Cuba.
brunneus Fabricius, Mant. Ins. II, 359, 20 (*Asilus*); Entomol. System. IV, 382, 28 (*id.*); System. Antl. 165, 9 (*Dasygogon*); Wiedemann, Dipt. Exot. I, 219, 9 (*id.*); Auss. Zw. I, 382 (*id.*). Macquart, Dipt. Exot. I, 2, 34, 4 (*id.*) ⁽¹¹⁰⁾. Bellardi, Saggio, etc. II, 67 (*Saropogon*). — Cayenne (Fab.); Mexico (Bellardi); Philadelphia (Macq.).
Craverii Bellardi, Saggio, etc. II, 68 (*Saropogon*). — Mexico.
quantlensis Bellardi, Saggio, etc. II, 68 (*Saropogon*). — Mexico.
dubius Bellardi l. c. 74 (*Saropogon*). — Mexico.
goniostigma Bellardi, Saggio, etc. II, 65; Tab. I, f. 6 (*Saropogon*). — Mexico.
Jalapensis Bellardi, Saggio, etc. II, 65; Tab. I, f. 5 (*Saropogon*). — Mexico.
nigripes Bellardi, Saggio, etc. II, 75 (*Saropogon*). — Mexico.
nigripennis Macquart, Dipt. Exot. 2^e Suppl. 34, 55; Tab. I, f. 6 (*Dasygogon*), Bellardi, Saggio, etc. II, 75 (*Saropogon*). — Mexico.

pseudojalapensis Bellardi, Saggio, etc., App. 25 (*Dasyopogon*). — Mexico.

rubescens Bellardi, Saggio, etc. II, 71 (*Saropogon*). — Mexico.

Sallei Bellardi, Saggio, etc. II, 70 (*Saropogon*). — Mexico.

**ternatus* Loew, Centur. VII, 38. — Cuba.

tricolor Bellardi, Saggio, 72 (*Saropogon*). — Mexico. [Probably *Diognites*, but not certain. Loew, *in litt.*]

virescens Bellardi, Saggio, 72 (*Saropogon*). — Mexico.

Duillins Walker, List, etc. II, 340 (*Dasyopogon*). — Honduras. ⁽¹¹⁾.

Saropogon.

Loew, Linn. Ent. II, 439; 1847.

**adustus* Loew, Berl. Ent. Z. 1874, 375. — Texas.

**combustus* Loew, l. c. 374. — Texas.

Lastaurus.

Loew, Bem. über die Fam. der Asiliden, Berlin 1851, 11.

anthracinus Loew, Bem. über die Fam. der Asiliden, 12. — Mexico. [Schiner (Verh. Z. B. Ges. 1867, 373) identifies this species with *Dasyopogon lugubris* Macq. Dipt. Exot. Suppl. I, 64, from Surinam; whether correctly or not, the insufficiency of my materials does not enable me to decide. — Loew, *in litt.*]

Observation. For *Dasyopogon scifasciatus* Say and *Dasyopogon albiceps* Macq. see the genus *Laphystia* (Laphrina).

The following species I do not know and cannot refer them to the new genera formed at the expense of *Dasyopogon* in Meigen's and Wiedemann's sense:

Dasyopogon angustus Macquart, Dipt. Exot. 3e Suppl. 20, 59; Tab. I, f. 11. — Haiti.

Dasyopogon cepphicus Say, Journ. Acad. Phil. VI, 158; Compl. Wr. II, 354. — Mexico.

Dasyopogon mexicanus Macquart, Dipt. Exot. 1er Suppl. 68, 49; Tab. VI, f. 10. — Mexico.

Dasyopogon nigratarsis Macquart, Dipt. Exot. 1er Suppl. 68, 50. — Mexico.

Dasyopogon parvus Bigot, R. de la Sagra, etc. 789; Tab. 20, f. 2. — Cuba. [Mr. Bigot told me that the original type has been accidentally destroyed in his collection.]

The occurrence of *Dasyopogon tautonus* Linn. in North America seems very improbable, although Macquart, Dipt. Exot. 4e Suppl. pages 8 and 64, mentions it as received from Florida. Hitherto not a single Asilida, common to Europe and North America, has been recorded with certainty.

SECTION II. LAPHRINA. (*)

Megapoda.

Macquart, Hist. Nat. Dipt. I, 228, 1834; Dipt. Exot. I, 2, 59.

cyaneiventris Macquart, Dipt. Exot. 1er Suppl. 71, 3; Tab. VII, f. 12. — Mexico.

*) In this and in the following Section (Asilina), I followed Schiner's views (in "die Wiedemann'schen Asiliden", Verh. Z. B. Ges. 1866, 649), whenever I had no opinion of my own. Schiner, Verh. Z. B. Ges. 1866, 662 gives an analytical table for determining the genera.

Atomosia.

Macquart, Dipt. Exot. I, 2, 73; 1838.

glabrata Say, J. Acad. Phil. III, 53, 2; Compl. Wr. II, 66 (*Laphria*). — Atlantic States.

***puella** Wiedemann, Auss. Zw. I, 531 (*Laphria*). — Locality unknown to Wied. (North America, according to Schiner, Verh. Z. B. Ver. 1866, 706, top of second column). — Atlantic States.

Laphria pygmaea Macquart, Hist. Nat. Dipt. I, 287, 30. — Georgia.

(?) *Laphria Echemon* Walker, List, etc. II, 386. — Ohio.

pusilla Macquart, Dipt. Exot. I, 2, 76, 6. — North America.

***rufipes** Macquart, Dipt. Exot. 2^e Suppl. 39, 9. — Philadelphia (Macq.).

Beckeri Jaenicke, Neue Exot. Dipt., 51. — Mexico.

(?) **Bigotti** Bellardi, Saggio, etc. II, 20. — Mexico (the query is Bellardi's).

***incisuralis** Macquart, Dipt. Exot. I, 2, 76, 4; Tab. VII, f. 1; Bigot, in R. de la Sagra etc. 788. — Cuba.

Macquartii Bellardi, Saggio, etc. II, 20. — Mexico.

sericans Walker, Trans. Ent. Soc. N. Ser. V, 282. — Mexico.

similis Bigot, in R. de la Sagra etc. 788; Tab. XX, f. 4. — Cuba.

tibialis Macquart, Dipt. Exot. 1^{er} Suppl. 76, 8. — Yucatan.

Cerotainia.

Schiner, Verh. Zool. Bot. Ges. 1866, 673; id. Novara, 170.

***macrocera** Say, J. Acad. Phil. III, 73, 3; Compl. Wr. II, 67 (*Laphria*); Wiedemann, Auss. Zw. I, 531, 57 (*id.*). — Pennsylvania.

nigripennis Bellardi, Saggio, etc. II, 19 (*Atomosia*). — Mexico (placed in this genus by Schiner, Verh. Z. B. Ges. 1866, 706).

Dasyllis.

Loew, Bem. über die Fam. der Asiliden, 20; 1851.

***flavicoilis** Say, Long's Exped. App. 374, 2; Compl. Wr. I, 255 (*Laphria*); Wiedemann, Auss. Zw. I, 519, 34 (*id.*). — N. W. Territory (Say); Massachusetts (Harris, Catal.); Atlantic States.

Laphria melanopogon Wiedemann, Auss. Zw. I, 520, 36 ♀ [Synonymy suggested by Wiedemann and borne out by the type in Vienna].

***lata** Macquart, Dipt. Exot. 4^e Suppl. 75 (*Laphria*). — Texas (Macq.); Louisiana. (¹¹²).

Mallophora analis Macquart, Dipt. Exot. 1^{er} Suppl. 78, 20 (Synonymy and change of name by Macquart).

***posticata** Say, Long's Exped. App. 374, 1; Compl. Wr. I, 255 (*Laphria*); Wiedemann, Auss. Zw. I, 518, 32 (*id.*); Macquart, Dipt. Exot. I, 2, 69, 17 (*id.*) — N. W. Territory (Say); Massachusetts (Harris Cat.). — Atlantic States.

***sacrafor** Walker, List, etc. II, 382 (*Laphria*). — Nova Scotia (Walk.); Quebec; White Mts., N. H.; Catskill, New York

- **safrana* Fabricius, System. Antl. 160, 18; (*Laphria*); Wiedemann, Dipt. Exot. I, 234, 4 (*id.*); Auss. Zw. I, 504, 9 (*id.*). — Carolina (Fab.); Georgia (Wied.).
- **thoracica* Fabricius, Syst. Antl. 158, 10 (*Laphria*; in the *erratum* the name is changed for *L. fulvithorax*); Wiedemann, Dipt. Exot. I, 236, 8 (*Laphria*); Auss. Zw. I, 511, 21 (*id.*; Wiedemann does not adopt the change of name, proposed by Fabricius in *erratis* and l. c. states the reason); Macquart, Dipt. Exot. I, 2, 68, 14 (*Laphria*). — North America (Fab.); also in the West Indies (Macq.). *Laphria Alcmor* Walker, List, etc. II, 383 (!). ⁽¹¹³⁾
Laphria affinis Macquart, Dipt. Exot. 5^e Suppl., 54, 45. — Baltimore. ⁽¹¹⁴⁾
- **tergissa* Say, J. Acad. Phil. III, 74, 5; Compl. Wr. II, 67 (*Laphria*); Wiedemann, Auss. Zw. I, 502 5 (*id.*). — Pennsylvania (Say).
Laphria grossa Fabricius, Spec. Ins. II, 460, 1; System. Antl. 153, 1. ⁽¹¹⁵⁾
Laphria analis Macquart, Dipt. Exot. I, 2, 68, 15. ⁽¹¹⁶⁾
Laphria flavibarbis Harris, Ins. N. Engl. 3^d edit. 604. ⁽¹¹⁷⁾
- **astur* O. Sacken, Western Dipt. 285. — California, common.
- **columbica* Walker, in Lord's Naturalist etc. II, 388! (*Laphria*); description reproduced in O. Sacken, Western Diptera, 285. — Vancouver's Island.
- **fascipennis* Macquart, Hist. Nat. Dipt. I, 284, 20 (*Laphria*). — Cayenne (Macq.); Central America (Loew).
Laphria praepotens Macquart, Dipt. Exot. Suppl. 1, 74. — (Loew *in litt.*). According to Schiner, Novara etc. 172, this species is a *Dasyllis*.
- Observation. The *Laphria flavipila* Macquart, Hist. Nat. Dipt. I, 282, 8, United States, is omitted in the above list, as it is impossible to make out, what it is.

Pogonosoma.

Rondani, Dipt. it. Prodr. I, 160; 1856.

- **dorsata* Say, Amer. Entom. I, Tab. VI (*Laphria*); Wiedemann, Auss. Zw. I, 506, 12 (*id.*). — Pennsylvania (Say).
melanoptera Wiedemann, Auss. Zw. I, 514, 26 (*Laphria*). — Patria unknown (Wied.); South Carolina (Schiner, Verh. Z. B. Ges. 1866, 707; it is not explained however on what authority this statement is made, which is the more singular, as l. c. 691, Dr. Schiner states that the species is unknown to him).

Laphria. (*)

Meigen, in Illiger's Magaz. II, 1803.

- **Aeatus* Walker, List, etc. II, 381. — Nova Scotia; Hud. B. Terr (Walk.); White Mts., N. H.

*) Several of the species mentioned here as *Laphriae*, probably belong to *Dasyllis*.

- * *bilineata* Walker, List, etc. IV, 1156. — Huds. B. Terr. (Walker); Canada; Colorado (M. C. Z.).
- carolinensis* Schiner, Verh. Zool. Bot. Ges. 1867, 380. — Carolina.
- flavescens* Macquart, Dipt. Exot. I, 2, 69, 16. — Pyrenees in Europe and Carolina in North America (Macquart's statement).
- georgina* Wiedemann, Dipt. Exot. I, 235, 6; Auss. Zw. I, 506. — Savannah.
- lasipus* Wiedemann, Auss. Zw. I, 502, 6 (*lasipes*, in erratis *lasipus*). — Kentucky.
- melanogaster* Wiedemann, Dipt. Exot. I, 236, 7; Auss. Zw. I, 507, 14; Macquart, Dipt. Exot. 1er Suppl., 75, 30. — Savannah and Mexico (Wied.); Texas (Macq.).
- * *Sadales* Walker, List, etc. II, 378. — New York (Walk.); White Mts., N. H.
- * *sericea* Say, J. Acad. Phil. III, 74, 4; Amer. Entom. I, Tab. VI; Wiedemann, Auss. Zw. I, 508, 16. — United States (Say).
- terrae novae* Macquart, Dipt. Exot. I, 2, 69, 18. — Newfoundland.
- * *rapax* O. Sacken, Western Diptera, 286. — Sierra Nevada, Cal.
- * *vultur* O. Sacken, Western Diptera, 286. — California.

Amandus Walker, List, etc. II, 373. — Guatemala.

componens Walker, Trans. Entom. Soc. N. Ser. V, 281. — Mexico.

homopoda Bellardi, Saggio, etc. App. 20, f. 16. — Mexico.

triligata Walker, Trans. Ent. Soc. N. Ser. V, 281. — Mexico.

Olbus Walker, List, etc. II, 375; Macquart, Dipt. Exot. 5^e Suppl. 53; Tab. II, f. 3. — Guatemala (Walk.); Honduras (Macq.).

Pseudorus.

Walker, Dipt. Saund. 103; 1850—56.

bicolor Bellardi, Saggio, etc. II, 11; Tab. I, f. 20. — Mexico.

Laphria.

Macquart, Dipt. Exot. I, 2, 60; 1838.

- * *bicolor* Wiedemann, Auss. Zw. I, 522, 40 (*Laphria*). — Patria unknown (Wied.). — Middle and Southern States.
- Laphria saniosa* Say, J. Acad. Phil. VI, 158; Compl. Wr. II, 355.
- Laphria Antaea* Walker, List, etc. II, 379 and VII, 527 (= „*saniosa* Say?“ Walk.).
- Laphria megacra* Macquart, Hist. Nat. Dipt. I, 284, 18 (!).
- * *rubriventris* Macquart, Hist. Nat. Dipt. I, 284, 19 (*Laphria*). — Philadelphia (Macq.); Texas. (¹¹⁸).
- * *felis* O. Sacken, Western Diptera, 286. — Sierra Nevada, Cal.

circumdata Bellardi, Saggio, etc. II, 15; Tab. I, f. 17. — Mexico.

clayipes Fabricius, Syst. Antl. 162, 27 (*Laphria*); Wiedemann, Dipt. Exot. I, 237, 9 (*id.*); Auss. Zw. II, 513, 23 (*id.*); Macquart, Dipt. Exot.

- I, 2, 61; Bellardi, Saggio, etc. II, 13; Tab. I, f. 15. — Brazil (Fabr.); Mexico (Bell.).
mexicana Macquart, Dipt. Exot. 2^e Suppl. 37, 3; Bellardi, Saggio, etc. II, 13. — Mexico.

Laphystia.

Loew; Linn. Ent. II, 538; 1847.

- * **sexfasciata** Say, J. Acad. Phil. III, 50, 1; Compl. Wr. II, 64 (*Dasy-pogon*); Wiedemann, Auss. Zw. I, 408, 68 (*id.*). — Missouri (Say); New Jersey, Florida (M. C. Z.).
 (?) **albiceps** Macquart, Dipt. Exot. 1^{er} Suppl. 69, 51 (*Dasy-pogon*). — Texas.

Observation. Dr. Schiner (Verh. Zool. Bot. Ges. 1866, 698) places *L. scæfasciata* Say, in the genus *Laphyctis*; Loew objects to it in Berl. Ent. Z. 1874, p. 373.

Andrenesoma.

Rondani, Dipt. it. Prodr. I, 160; 1856.

- * **pyrrhaera** Wiedemann, Auss. Zw. I, 517, 31 (*Laphria*). — Savannah, Missouri; Brazil (the latter locality also in Schiner, Novara etc., 175).
Laphria fulvicauda Say, J. Acad. Phil. III, 53; Amer. Ent. I, Tab. VI (*id.*). [Name changed by Wied.]
cinerea Bellardi, Saggio, etc. II, 16; Tab. I, f. 16 (*Lampria*). — Mexico.
cineta Bellardi, Saggio, etc. II, 18; Tab. I, f. 19 (*Laphria*). — Mexico.
formidolosa Walker, Trans. Ent. Soc. N. Ser. V, 280; Bellardi, Saggio, etc. II, 17; Tab. I, f. 18 (*Laphria*). — Mexico. ⁽¹¹⁾
xanthoœnema Wiedemann, Auss. Zw. I, 509, 18; Macquart, Dipt. Exot. I, 2, 67, 12. — West Indies (Macq.); Brazil (Wied.). ^(11b)

SECTION III. ASILINA. ⁽¹¹⁹⁾

Mallophora.

Macquart, Hist. Nat. Dipt. I, 300; 1834.

- ardens** Macquart, Hist. Nat. Dipt. I, 302, 4; Dipt. Exot. I, 2, 89, 12; Tab. VIII, f. 2. — North America (Macq.).
 * **bomboides** Wiedemann, Dipt. Exot. I, 203, 37 (*Asilus*); Auss. Zw. I, 476, 77 (*id.*); Macquart, Hist. Nat. Dipt. I, 302, 2; Dipt. Exot. I, 2, 89, 11. — Georgia (Wied.).
clausicella Macquart, Dipt. Exot. 4^e Suppl. 79, 27; Tab. VII, f. 8. — Virginia („perhaps a variety of *M. heteroptera*?” Macq.).
fulviventris Macquart, Dipt. Exot. 4^e Suppl. 77, 24. — Mexico; Texas? (Macq.).
 * **laphroides** Wiedemann, Auss. Zw. I, 483 (*Asilus*). — Kentucky.
Mallophora heteroptera Macquart, Dipt. Exot. I, 2, 90, 13; Tab. VIII, f. 3. — Philadelphia.
 (?) *Mallophora minuta* Macquart, Hist. Nat. Dipt. I, 302, 5.

***oreina** Wiedemann, Auss. Zw. I, 477, 79 (*Asilus*). — Georgia (Wied.); Distr. Columbia.

Amphinome Walker, List, etc. II, 387 (*Asilus*). — Honduras. [Loew *in litt.*; supposes this to be a *Proctacanthus*; I could not find the specimen in the Br. Mus.]

Craverii Bellardi, Saggio, etc. II, 22. — Mexico.

fulvianalis Macquart, Dipt. Exot. 4^e Suppl. 78, 25 („perhaps ♀ of *fulvicentris*“ Macq.). — Mexico.

infernalis Wiedemann, Dipt. Exot. I, 202 (*Asilus*); Auss. Zw. I, 475 (*id.*); Macquart, Hist. Nat. Dipt. I, 301; Perty, Delectus etc. 181, Tab. XXXVI, f. 5 (*Asilus*). — Brazil; Mexico.

***Macquartii** (Loew *in litt.*), Macquart, Dipt. Exot. I, 2, 89, 10; Bigot in R. de la Sagra etc. 790 (described by both as *M. scopifera* Wied.). — Cuba. ⁽¹²⁰⁾

pica Macquart, Dipt. Exot. 4^e Suppl. 78, 26. — Mexico.

robusta Wiedemann, Auss. Zw. I, 478, 81 (*Asilus*); Macquart, Dipt. Exot. 1^{er} Suppl. 78. — No locality in Wiedem.; Yucatan (Macq.).

scopifer Wiedemann, Auss. Zw. I, 478, 83 (*Asilus*). — Brazil (Wied.); Columbia, S. A. (Schiner, Novara). ⁽¹²⁰⁾

Observation. *Trupanea perpusilla* Walker, Dipt. Saund., 123. — United States; I saw the specimen in the Brit. Mus. it appeared to me like a small *Mallophora*.

Promachus.

Loew, Linn. Ent. III, 390; 1848; *Trupanea* Macquart (preocc.).

***apivorus** Fitch, Reports, Vol. III, 251 – 256; Tab. IV, f. 7 (*Trupanea*); Riley, 1st Report, 168 (*id.*). — Nebraska; North Missouri. ⁽¹²¹⁾

***Bastardii** Macquart, Dipt. Exot. I, 2, 104, 30 (*Trupanea*). — North America.

Asilus laevinus Walker, List, etc. II, 392 (!). — Massachusetts.

Promachus philadelphicus Schiner Verh. Z. B. Ges. 1867, 389. — Pennsylvania (!).

Trupanea rubiginis Walker, Dipt. Saund., 123 — North America (!).

quadratus Wiedemann, Dipt. Exot. I 201, 34; Auss. Zw. I, 485, 90 (*Asilus*). — Georgia ⁽¹²²⁾.

***rufipes** Wiedemann, Auss. Zw. I, 487, 93 (*Asilus*). — America (Wied.); Georgia (M. C. Z.)

***vertebratus** Say, J. Acad. Phil. III, 47; Compl. Wr. II, 62 (*Asilus*); Wiedemann, Auss. Zw. I, 485, 91 (*id.*); Macquart, Dipt. Exot. I, 2, 103, 27 (*Trupanea*). — Missouri (Say); Illinois (M. C. Z.).

cinctus Bellardi, Saggio, etc. II, 25; Tab. II, f. 2 — Mexico.

fuscipennis Macquart, Dipt. Exot. 1^{er} Suppl. 81, 44; Tab. VIII, f. 4 (*Trupanea*); Bellardi, Saggio, etc. II 24; Tab. II, f. 1, Var A; Schiner, Novara etc. p. 177. — New Granada (Macq); Mexico (Bell.). ⁽¹²³⁾

magnus Bellardi, Saggio, etc. II, 26. — Mexico.
pulchellus Bellardi, Saggio, etc. II, 29; Tab. II, f. 5. — Mexico.
quadratus Bellardi, Saggio, etc. II, 27; Tab. II, f. 3. — Mexico. ⁽¹²⁴⁾.
trapezoidalis Bellardi, Saggio, etc. II, 28, Tab. II, f. 4. — Mexico.
Truquii Bellardi, Saggio, etc. II, 30; Tab. II, f. 6. — Mexico.

Observation. *Asilus ultimus* Walker, Dipt. Saund., 136, United States, is a *Promachus*, and if I recollect right, *P. Bastardii*.

Erax.

Macquart, Dipt. Exot. I, 2, 107; 1838.

- ***aestuans** Linné, System. Nat. II, 1007, 5; Amoen. Acad. VI, 413, 95 (*Asilus*); Fabricius, System. Ent. IV, 379, 8 (*Asilus*); System. Antl. 164, 2 (*Dasygogon*); Olivier, Encyclop. Méth, I, 264; Wiedemann, Dipt. Exot. I, 200, 32; Auss. Zw. I, 467, 63 (*Asilus*); Macquart, Hist. Nat. Dipt. I, 312, 36 (*Asilus*); Dipt. Exot. I, 2, 115, 19; Bigot, in R. de la Sagra, etc. 791. — North America; Cuba (according to Macquart also in Brazil). ⁽¹²⁵⁾.
- albibarbis** Macquart, Dipt. Exot. I, 2, 118, 26; Comp. Schiner, Verh. Z. B. Ges. 1867, 395. — North America.
- ***ambiguus** Macquart, Dipt. Exot. 1^{er} Suppl. 84, 34 — Galveston, Texas; Merida, Yucatan (Macq.); Georgia (M. C. Z.).
Asilus interruptus Macquart, H. N. Dipt. I, 310, 29. — Georgia. ⁽¹²⁶⁾.
- apicalis** Wiedemann, Dipt. Exot. I, 191, 16 (*Asilus*); Auss. Zw. I, 443, 28 (*id.*). — North America. ⁽¹²⁷⁾.
- ***Bastardi** Macquart, Dipt. Exot. I, 117, 25; Tab. 9, f. 7; Riley, 2^d Report, 124 (figure of larva, pupa, imago). — North America.
- completus** Macquart, Dipt. Exot. I, 2, 117, 23; Tab. IX, f. 9. — North America.
- femoratus** Macquart, Dipt. Exot. I, 2, 115, 20. — Carolina.
- incisuralis** Macquart, Dipt. Exot. I, 2, 117, 24. — Philadelphia.
- lateralis** Macquart, Dipt. Exot. I, 2, 116, 21. — Philadelphia.
- macrolabis** Wiedemann, Auss. Zw. I, 458, 51 (*Asilus*). — Kentucky.
- niger** Wiedemann, Dipt. Exot. I, 196, 26; Auss. Zw. I, 460, 53 (*Asilus*). — Georgia.
- notabilis** Macquart, Dipt. Exot. I, 2, 110, 6; Tab. IX, f. 8. — America.
- pogonias** Wiedemann, Dipt. Exot. I, 198, 29; Auss. Zw. 460, 54 (*Asilus*). — North America.
- Asilus barbatus* Fabricius, System. Antl. 169, 22 name changed by Wied.).
- rufibarbis** Macquart, Dipt. Exot. I, 2, 116, 22. — North America.
- tibialis** Macquart, Dipt. Exot. I, 118, 27. — Philadelphia; Cayenne, Guyana (Macq.).
- vicinus** Macquart, Dipt. Exot. 1^{er} Suppl. 85, 36. — Galveston, Texas.
- affinis** Bellardi, Saggio, etc. II, 41. — Mexico.
- aper** Walker, List, etc. VII, 621. — Mexico.
- anomalus** Bellardi, Saggio, etc. II, 32; Tab. II, f. 7. — Mexico.
- argyrogaster** Macquart, Dipt. Exot. 1^{er} Suppl. 84, 35. — Yucatan. ⁽¹²⁸⁾

- bicolor** Bellardi, Saggio, etc. II, 47. — Mexico.
- bimaculatus** Bellardi, Saggio, etc. II, 45; Tab. II, f. 11. — Mexico (Bellardi); Columbia, S. A. (Schiner, Novara, 182).
- carinatus** Bellardi, Saggio, etc. II, 36; Tab. II, f. 9. — Mexico.
- caudex** Walker, List, etc. II, 404. — West Indies.
- einerascens** Bellardi, Saggio, etc. II, 39; Tab. II, f. 10; Compare also Schiner. Verh. Z. B. Ges. 1867, 394. — Mexico.
- cingulatus** Bellardi, Saggio, etc. II, 42. — Mexico.
- comatus** Bellardi, Saggio, etc. II, 34. — Mexico.
- eximius** Bellardi, Saggio, etc. II, 38. — Mexico.
- flavofasciatus** Wiedemann, Auss. Zw. I, 470, 68. — Brazil (Wied.); Honduras (Walker, List, etc. II, 400).
- fortis** Walker, List, etc. VII, 623. — San Domingo.
- fulvibarbis** Macquart, Dipt. Exot. 3^e Suppl. 28, 44; Tab. II, f. 13. — Haiti.
- Haitensis** Macquart, Dipt. Exot. 3^e Suppl. 28, 45; Tab. II, f. 10. — Haiti.
- haloesus** Walker, List, etc. II, 405. — Jamaica.
- invarius** Walker, Dipt. Saund. 131. — Jamaica.
- laseivus** Wiedemann, Auss. Zw. I, 474, 75. — Brazil (Wied.); Honduras (Walker, List, etc. II, 400).⁽¹²⁸⁾
- Asilus Amarynceus* Walker, List, etc. II, 400 (no locality). — [Synonymy according to Walker, List, etc. VII, 637.]
- maculatus** Macquart, Dipt. Exot. I, 2, 111, 9; Tab. IX, f. 6. — Guyana; Columbia (S. A.); Guadeloupe.⁽¹²¹⁾
- Loewii** Bellardi, Saggio, etc. App. 21, f. 17. — Mexico.
- marginatus** Bellardi, Saggio, etc. II, 46. — Mexico.
- nigrimystaceus** Macquart, Dipt. Exot. 2^e Suppl. 41, 40. — Guadeloupe.
- parvulus** Bellardi, Saggio, etc. II, 35; Tab. II, f. 8. — Mexico.
- pumilus** Walker, List, etc. VII, 640. — Vera Cruz.
- quadriramaculatus** Bellardi, Saggio, etc. II, 44; Tab. II, f. 13. — Mexico.
- rufitibia** Macquart, Dipt. Exot. 3^e Suppl. 27, 42; Tab. II, f. 11. — Haiti; Rio Negro (S. Amer.).
- stylatus** Fabricius, System. Ent. IV, 795, 17; Ent. System. IV, 384, 38 (*Asilus*); System. Antl. 171, 31 (*Dasypogon*); Wiedemann, Dipt. Exot. I, 198, 30 (*Asilus*); Auss. Zw. I, 462, 57 (*id.*); Tab. VI, f. 6. — West Indies.
- tricolor** Bellardi, Saggio, etc. II, 40; Tab. II, 12. — Mexico.
- unicolor** Bellardi, Saggio, etc. II, 37. — Mexico.

Observation. *Erax Dasyllus* Walker, List, etc. II, 401, Massachusetts; the fragment in the Brit. Mus. is not recognizable.

Erax Antiphon Walker, List, etc. VII, 618. Short diagnosis only; at the same time the author quotes in the synonymy:

Asilus Antiphon List, etc. II, 397, with the remark: „the previous description of this species is erroneous“. This previous description refers evidently to some other species and gives no habitat. I do not find anything about this species in my notes taken in the Brit. Mus.

Neoceristicus.

Eristicus Loew, Linn. Ent. III, 396; 1848. ⁽¹²⁹⁾.

Bellardii Schiner, Novara etc. 182 (*Eraæ*) — Columbia, S. A. (Schiner); Mexico (Bell.).

Eraæ nigripes Bellardi, Saggio, etc. II, 48 (*Eristicus*), change of name by Schiner.

villosus Bellardi, Saggio, etc. II, 49 (*Eristicus*). — Mexico.

Proctacanthus.

Macquart, Dipt. Exot. I, 2, 120; 1838.

***brevipennis** Wiedemann, Auss. Zw. I, 431, 10 (*Asilus*). — Kentucky (Wied.); Florida (G. S.).

fulviventris Macquart, Dipt. Exot. 4^e Suppl. 88, 12. — Florida. ⁽¹³⁰⁾.

***heros** Wiedemann, Auss. Zw. I, 427, 4 (*Asilus*). — Kentucky (Wied.); South Carolina (M. C. Z.).

longus Wiedemann, Dipt. Exot. I, 183, 1; Auss. Zw. I, 426, 3 (*Asilus*); Macquart, Hist. Nat. Dipt. I, 307, 18 (*Asilus*); Dipt. Exot. I, 2, 123, 6. (compare also Schiner, Verh. Zool. Bot. Ges. 1866, 682, 3). — Georgia.

micans Schiner, Verh. Zool. Bot. Ges. 1867, 397. — North America.

***Milbertii** Macquart, Dipt. Exot. I, 2, 124, 8. — North America.

(?) *Asilus Agrion* Jaennicke, Neue Exot. Dipt. 57. — Illinois. ⁽¹³¹⁾.

Asilus missouriensis Riley, 2^d Report 122, fig. 89. — Missouri.

nigriventris Macquart, Dipt. Exot. I, 2, 124, 9. — Philadelphia; Carolina (Macq.).

***philadelphicus** Macquart, Dipt. Exot. I, 2, 123, 7; — Philadelphia (Macq.).

Craverii Bellardi, Saggio, etc. II, 50. — Mexico.

rufiventris Macquart, Dipt. Exot. I, 2, 123, 5; Tab. X, f. 2. — San Domingo, Honduras.

Eecritosia.

Schiner, Verh. Zool. Bot. Ges. 1866, 674.

plinthopyga Wiedemann, Dipt. Exot. I, 184, 4 (*Asilus*); Auss. Zw. I, 432, 11 (*id.*); Bigot, in R. de la Sagra etc. 791 (*id.*). — Cuba.

Asilus.

Linné, Fauna Suecica; 1761. ⁽¹³²⁾.

femoralis Macquart, Dipt. Exot. 2^e Suppl. 45, 61. — Philadelphia.

longicella Macquart, Dipt. Exot. 4^e Suppl. 95, 77; Tab. IX, f. 5. — North America (with a doubt).

***Novae Scotiae** Macquart, Dipt. Exot. 2^e Suppl. 46, 62. — Nova Scotia.

***sericeus** Say, J. Acad. Phil. III, 48, 2; Compl. Wr. II, 63; Wiedemann, Auss. Zw. I, 429, 8. — United States.

Asilus Herminius Walker, List, etc. II, 410 (!).

tibialis Macquart, Hist. Nat. Dipt. I, 313, 38. — Philadelphia.

- apicalis** Bellardi, Saggio, etc. II, 57. — Mexico. ⁽¹³³⁾.
atripes Fabricius, System. Antl. 170, 29 (*Dasygogon*); Wiedemann,
 Dipt. Exot. I, 195, 24; Auss. Zw. I, 155, 46. — West Indies.
inamatus Walker, Trans. Ent. Soc. N. Ser. V, 283. — Mexico.
infuscatus Bellardi, Saggio, etc. II, 56; Tab. II, f. 15. — Mexico.
megacephalus Bellardi, Saggio, etc. II, 58; Tab. II, f. 14. — Mexico.
mexicanus Macquart, Dipt. Exot. 1^{er} Suppl. 94, 55. — Mexico.
perrumpens Walker, Trans. Ent. Soc. N. Ser. V, 283. — Mexico.
vittatus Olivier, Encycl. Méth. I, 263, 4. — San Domingo.

Observation.

- Asilus Alethes** Walker, List, etc. II, 454. — New York.
Asilus Antimachus Walker, List, etc. II, 454. — Trenton Falls N. Y.
Asilus Lecythus Walker, List, etc. II, 451. — Nova Scotia.
Asilus Orphine Walker, List, etc. II, 456. — New York.
Asilus Paropus Walker, List, etc. II, 455. — New York.
Asilus Sadyates Walker, List, etc. II, 453. — Ohio.
 The specimens exist in the Brit. Mus. and belong to the different genera, in which *Asilus* has been subdivided; most of them, if not all, will coincide with previously described species.

Asilus ultimus Walker Dipt. Saund. 136, is a *Promachus*.
 For *Asilus Agrion* Jaennicke, see *Proctacanthus Milbertii*.

Philonicus.

Loew, Linn. Ent. IV, 144; 1849.

- taeniatus** Bellardi, Saggio, etc. II, 55. — Mexico.
Tuxpanganus Bellardi, Saggio, etc. App. 22. — Mexico.

Lophonotus.

Macquart, Dipt. Exot. I, 2, 125; 1838; Loew, Linn. Ent. III, 423, 1848,
 modifies the limits of the genus.

- humilis** Bellardi, Saggio, etc. II, 51. — Mexico.

Neomochtherus.

- Mochtherus** Loew, Linn. Ent. IV, 58; 1849. ⁽¹³⁴⁾.
gracilis Wiedemann, Auss. Zw. I, 445, 31 (*Asilus*). — Savannah. ⁽¹³⁵⁾.
Truquii Bellardi, Saggio, etc. II, 52. — Mexico.
fuliginosus Bellardi, Saggio, etc. II, 52. — Mexico.

Neoitamus.

- Itamus** Loew, Linn. Ent. IV, 84; 1849. ⁽¹³⁴⁾.
***aenobarbus** Loew *in litt.* — Northern and Middle States.

Epitriptus.

- Loew, Linn. Ent. IV, 108; 1849.
 (?) **albispinosus** Bellardi, Saggio, etc. II, 54 (the query is Bellardi's). — Mexico.
niveibarbus Bellardi, Saggio, etc. II, 53. — Mexico.

Machinus.

- Loew, Linn. Ent. IV, 1; 1849.
avidus v. d. Wulp, Tijdschr. v. Ent. 2^d Ser., IV, 82. — Wisconsin.

Stilpnogaster.

Loew, Linn. Ent. IV, 82; 1849.

aueps v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. IV, 84. — Wisconsin.

Tolmerns.

Loew, Linn. Ent. IV, 94; 1849.

**annulipes* Macquart, Dipt. Exot. I, 2, 149, 36 (*Asilus*). — Carolina (Macq.); Atlantic States and Canada.

notatus Wiedemann, Auss. Zw. I, 451, 40 (*Asilus*). — Savannah.

Ommatius.^(127a)

Illiger; Wiedemann, Auss. Zw. I, 418; 1828.

tibialis Say, J. Acad. Phil. III, 49; Compl. Wr. II, 63; Wiedemann, Auss. Zw. I, 422, 6. — Pennsylvania.

fuscipennis Bellardi, Saggio, etc. App. 23. — Mexico.

marginellus Fabricius, Spec. Ins. II, 464, 22 (*Asilus*); Ent. System. 384, 36 (*id.*); System. Antl. 170, 28 (*Dasygogon*); Wiedemann, Dipt. Exot. I, 213, 1; Auss. Zw. I, 421, 5; Tab. VI, f. 5. — West Indies; Macquart, Dipt. Exot. I, 2, 134, 4 has it from Brazil.⁽¹²⁶⁾

parvus Bigot, Ann. Soc. Entom. 1875, 247. — Mexico.

pumilus Macquart, Dipt. Exot. 2^e Suppl., 42, 6; Tab. I, f. 10; Bellardi, Saggio, etc. II, 59. — Mexico.

Saccas Walker, List, etc. II, 474. — Jamaica.

vitreus Bigot, Ann. Soc. Ent. 1875, 245. — Haity.

Emphysomera.

Schiner, Verh. Zool. Bot. Ges. 1866, 665; id. Novara, p. 195.

pilosula Bigot, Ann. Soc. Ent. 1875, 243. — Mexico.

bicolor Bigot, Ann. Soc. Ent. 1875, 244. — Mexico.

FAMILY MIDAIDAE.⁽¹²⁷⁾**Leptomidas.**

Leptomylas, Gerstaecker, Stett. Ent. Z. 1863, 81.

**venosus* Loew, Centur. VII, 26. — Pecos River, Western Texas.

**pantherinus* Gerstaecker, Stett. Ent. Z. 1868, 85; O. Sacken, Western Diptera, 280. — California (Lone Mt. San Francisco, O. Sacken).

**tenuipes* Loew, Centur. X, 20 (*Midas*). — California.

Midas.⁽¹²⁸⁾

Mydas Fabricius, Entom. System. IV, 252; 1794.

**audax* O. Sacken, Bul. Buff. S. N. H. 1874, 186 (the descriptions of this and of the two following species, are reproduced in the note. — Kentucky.⁽¹²⁹⁾

- * **carbonifer** O. Sacken, l. c. 186. — Western New York.
- * **chrysostomus** O. Sacken, l. c. 187. — Texas.
- * **clavatus** Drury, Illustr. of Nat. Hist. I, 103; Tab. 44, f. 1 and Vol. II, App. (*Musca*); Westwood, Arc. Ent., 51, 14. — Atlantic States (rare in Massachusetts).
- Nemotelus asiloides* Degeer, VI, Tab. XXIX, f. 6.
- Bibio illucens* Fabricius, System. Ent. 756, 1. (149).
- Bibio flata* Fabricius, Spec. Ins. II, 412; Mantissa, 323, 1; Ent. System. IV, 252 (*Mydas*); System Antl. 60, 1 (*id.*); Olivier, Encycl. Méth. VIII, 83, 1; Wiedemann, Dipt. Exot. 116, 2; Auss. Zw. I, 240, 3; Monogr. Midar. Tab. 53, f. 8 (for the quotations from Latreille and Dumeril, see Wiedemann).
- crassipes** Westwood, Arcan. Ent. I, 51; Tab. XIII, f. 3. — North America (?).
- fulvipes** Walsh, Proc. Bost. Soc. N. H. IX, 306. — Illinois.
- fulvifrons** Illiger, Magaz. I, 206; Wiedemann, Monogr. Mid. 47; Tab. LIII, f. 13. — Georgia.
- incisus** Macquart, Dipt. Exot. I, 2, 11; Tab. I, f. 1. — Carolina. (Mexico, according to Jaennicke, l. c. p. 46.)
- * **luteipennis** Loew, Centur. VII, 23. — Pecos River, Western Texas.
- maculiventris** Westwood, Lond. and Edinb. Phil. Mag. 1835, Arc. Ent. I, 53; Tab. XIII, f. 5. — Georgia.
- pachygaster** Westwood, Arc. Ent. I, 53; Tab. XIII, f. 4. — Georgia.
- parvulus** Westwood, Arc. Ent. I, 53; Tab. XIII, f. 6. — Georgia (Westw.); Florida (Walk.).
- * **simplex** Loew, Centur. VII, 25. — Pecos River, Western Texas.
- * **tibialis** Wiedemann, Monogr. Mid. 42; Tab. LIII, f. 6; Bellardi, Saggio, etc. II, 6. — Maryland; Michigan; Mexico (Bellardi).
- * **xanthopterus** Loew, Centur. VII, 24. — Pecos River, Western Texas.
- Mydas lavatus* Gerstaecker, Stett. Ent. Z. 1868, 96. — Mexico.
- * **ventralis** Gerstaecker, Stett. Ent. Z. 1868, 102. — California.
- Midus rufiventris* Loew, Centur. VII, 22 change of name by Gerst.).
- annularis** Gerstaecker, Stett. Ent. Z. 1868, 100. — Mexico.
- basalis** Westwood, Arc. Ent. I, 53, Bellardi, Saggio, etc. II, 10. — Mexico.
- bitaeniatus** Bellardi, Saggio, etc. II, 7; Tab. I, f. 1. — Mexico.
- * **gracilis** Macquart, Hist. N. Dipt. I, 274; Tab. VII, f. 1. — South America (Macq.); Cuba (Loew *in litt.*).
- interruptus** Wiedemann, Monogr. Mid. 46; Tab. LIII, f. 12. — Mexico.
- Midus tricinctus* Bellardi, Saggio, etc. II, 8; Tab. I, f. 2 [Gerst.].
- militaris** Gerstaecker, Stett. Ent. Z. 1868, 99. — Mexico.
- Midus vittatus* Macquart, Dipt. Exot. 4^e Suppl. 60; Tab. IV, f. 6; Bellardi, Saggio, etc. II, 7 [change of name by Gerst.].
- rubidapex** Wiedemann, Monogr. Mid. 40; Tab. 52, f. 2 (5); Auss. Zw. II, 626; Bellardi, Saggio, etc. II, 5. — Mexico.
- senilis** Westwood, Arc. Ent. I, 52. — Mexico.
- subinterruptus** Bellardi, Saggio, etc. II, 10; Tab. I, f. 3. — Mexico.

- * **tricolor** Wiedemann, Monogr. Mid. 42; Tab. 53, f. 5; Bigot, R. de la Sagra, etc. 799. — Cuba.

Observation. According to Mr. Walker, List, etc. I, 228, *Dolichogaster* (Midas) *brericornis* Wied. (variet. *iopterus* Wied.) from Brazil, also occurs in Florida and Massachusetts.

Raphiomidas.

O. Sacken, Western Diptera, 231; 1877.

- * **episcopus** O. Sacken, l. c. 282. — Southern California.

Apiocera.

Westwood, London and Edinburgh Phil. Magaz. 1835; the same, Arcana etc.; *Pomacera* Macquart Suppl. 2, p. 47, 1847; *Amygenus* Philippi, Verh. Zool. Bot. Ges. 1865, 702; Tab. 25, f. 26.

- * **harnsper** O. Sacken, Western Diptera, 283. — Yosemite Valley, Cal.

FAMILY NEMESTRINIDAE. ⁽¹⁴¹⁾.

Hirmoneura.

Meigen, System. Besch. II, 132; 1820.

- * **clausa** O. Sacken, Western Diptera, 225. — Dallas, Texas. ⁽¹⁴²⁾.

brevirostris Macquart, Dipt. Exot. Suppl. I, 101, 8; Tab. 20, f. 1. — Yucatan.

FAMILY BOMBYLIDAE. ⁽¹⁴³⁾.

Exoprosopa.

Macquart, Dipt. Exot. II, 1, 35; 1840.

- * **caliptera** Say, J. Acad. Phil. III, 46, 7; Compl. Wr. II. 62 (*Anthrax*); O. Sacken, Western Dipt., 233 — Arkansas (Say); Cheyenne, Wyo.; Tehuacan, Mexico (Coll. Bellardi).

- * **decora** Loew, Centur. VIII, 19. Wisconsin (Loew); Georgia, Texas, Illinois, Iowa, Red River of the North.

- * **dodrans** O. Sacken, Western Dipt., 234. — Colorado Springs, Col.

- * **doreadion** O. Sacken, Western Dipt., 231. — White Mts., N. H.; Maine; Rocky Mts., Col.; Sierra Nevada, Cal.; Washington Terr. *Anthrax capucina* Fabricius, Ent. System. IV, 259, 12; System. Antl. 123; Wiedemann and later authors have erroneously referred these quotations to a European species.

(? *Anthrax californiae* Walker, Dipt. Saund., 172. ⁽¹⁴⁴⁾).

- * **doris** O. Sacken, Western Dipt., 235. — Humboldt Desert, Nevada.

- * **emarginata** Macquart, Dipt. Exot. II, 1, 51, 40. — Philadelphia (Macq.); Virginia, Missouri.

- * **fascipennis** Say, Long's Exped. App. 373, 4; Compl. Wr. I, 254 (*Anthrax*); Wiedemann, Auss. Zw. I, 284, 39 (*id.*). — Atlantic States (especially Middle States); Cuba.

- Anthrax noctula* Wiedemann, Auss. Zw. II, 635, 45 (!).
Exoprosopa coniceps Macquart, Dipt. Exot. 4^e Suppl. 108, 63; Tab. X, f. 9; Bigot, R. de la Sagra etc. 793 (!). — Virginia (Macq.); Cuba (Bigot).
Exoprosopa philadelphica Macquart, Dipt. Exot. II, 1, 52, 41; Tab. XVIII, f. 1. (¹⁴⁵).
 **fasciata* Macquart, Dipt. Exot. II, 1, 51, 38; Tab. XVII, f. 6; O. Sacken, Western Dipt., 231. — Atlantic States.
Exoprosopa longirostris Macquart, Dipt. Exot. 4^e Suppl. 108, 62; Tab. X, f. 8 (!). — Virginia.
Exoprosopa rubiginosa Macquart, Dipt. Exot. II, 1, 51, 39; *ibid.* Suppl. I, 111. — Philadelphia; Columbia (South America). (¹⁴⁶).
Mulio americana v. d. Wulp, Tijdschr. etc. 2^a Ser., 141; Tab. IV, f. 1—4.
publensis Jaenicke, Neue Exot. Dipt. 34; Tab. II, f. 21. — Mexico (Jaenn.); Texas (Coll. v. Roeder).
 **sima* O. Sacken, Western Dipt., 231. — Humboldt Desert, Nevada.
 **titubans* O. Sacken, Western Dipt., 233. — Denver, Col.
 **Agassizii* Loew, Centur. VIII, 24. — California.
 **bifurea* Loew, Centur. VIII, 23. — California.
 **eremita* O. Sacken, Western Dipt., 236. — Northern California. (¹⁴⁷).
 **gazophylax* Loew, Centur. VIII, 18. — California.
anthracoidea Jaenicke, Neue Exot. Dipt., 32; Tab. II, f. 18. — Mexico.
blanchardiana Jaenicke, l. c. 33; Tab. II, f. 20. — Mexico.
 **cerberus* Fabricius, Ent. System. IV, 256, 1 (*Anthrax*); System. Antl. 118, 1 (*id.*); Wiedemann, Dipt. Exot. I, 118, 1 (*id.*); Auss. Zw. I, 253, 2; Tab. III, f. 1 (*id.*); Macquart, Hist. Nat. Dipt. I, 400, 1 (*id.*); Dipt. Exot. II, 1, 38, 6; Tab. XVI, f. 5. — South America (Wied. Macq.); Jamaica (Walker, List, etc. II, 233); Cuba (M. C. Z.).
clotho Wiedemann, Auss. Zw. II, 635 (*Anthrax*). — Mexico.
 **cubana* Loew, Centur. VIII, 22. — Cuba.
ignifer Walker, List, etc. II, 243 (*Anthrax*). — Jamaica. (¹⁴⁸).
Kaupii Jaenicke, Neue Exot. Dipt. 32; Tab. II, f. 17 (wing). — Mexico.
lacera Wiedemann, Auss. Zw. II, 633, 44 (*Anthrax*). — Mexico.
Latreillii Wiedemann, Auss. Zw. II, 633, 43 (*Anthrax*). — Mexico.
limbipennis Macquart, Dipt. Exot. Suppl. I, 110, 50; Tab. XX, f. 3. — Yucatan.
 **nubifera* Loew, Centur. VIII, 25. — Cuba.
Oreus Walker, List, etc. II, 237 (*Anthrax*). — Mexico.
parva Loew, Centur. VIII, 26. — Cuba.
Pilatei Macquart, Dipt. Exot. Suppl. I, 110, 49; Tab. XX, f. 2. — Yucatan.
Proserpina Wiedemann, Auss. Zw. I, 257, 6 (*Anthrax*); Macquart, Dipt. Exot. II, 1, 38, 7; Bigot, in R. de la Sagra etc. 793. — No locality (Wied.); San Domingo (Macq.); Cuba (Bigot).

rostrifera Jaennicke l. c. 33; Tab. II, f. 19. — Mexico.

subfascia Walker, List, etc. II, 249 (*Anthrax*). — Jamaica.

***sordida** Loew, Centur. VIII, 21. — Matamoras.

Thomae Fabricius, System. Antl. 135, 32 (*Anthrax*): Wiedemann, Dipt.

Exot. I, 129, 13 (*id.*); Auss. Zw. I, 271, 22 (*id.*). — St. Thomas.

***trabalis** Loew, Centur. VIII, 20. — Mexico.

trimacula Walker, List, etc. II, 250 (*Anthrax*). — Jamaica. (¹⁴⁹).

NB. *Anthrax Satyrus* Fabr. from Australia, or China (compare Wiedemann, Auss. Zw. I, 322, 95) is referred by Mr. Walker, List, etc. II, 243 to a species from Georgia. The ground is not stated.

Dipalta.

O. Sacken, Western Dipt., 236, 1877.

***serpentina** O. Sacken, Western Dipt., 237. — Georgia; Colorado; California; Mexico (Coll. Bellardi).

Anthrax.

Scopoli, Ent. Carniol.; 1763. (¹⁵⁰).

albipectus Macquart, Dipt. Exot. 3^e Suppl. 34, 80; Tab. III, f. 12. — North America.

albovittata Macquart, Dipt. Exot. 4^e Suppl. 113, 90; Tab. X, f. 15. — North America (?).

***alternata** Say, J. Acad. Phil. III, 45, 5; Compl. Wr. II, 61; Wiedemann, Auss. Zw. I, 303, 66. — Middle States.

Anthrax consanguinea Macquart, Dipt. Exot. II, 1, 69, 42; Tab. XXI. f. 1. — Philadelphia.

cedeus Walker, Dipt. Saund., 190. — United States.

***celer** Wiedemann, Auss. Zw. I, 310, 77; Macquart, Dipt. Exot. II, 1, 69, 43. — Kentucky; Georgia (Philadelphia in Macquart).

***Ceyx** Loew, Centur. VIII, : 0. — Virginia; Georgia.

(?) *Anthrax demogorgon* Walker, List, etc. II, 265. — Florida.

(?) **connexa** Macquart, Dipt. Exot. 5^e Suppl. 76, 96; Bigot, in R. de la Sagra etc. 794. — Baltimore (Macq.); Cuba (Bigot).

costatus Say, Long's Exped. App. 373, 5; Compl. Wr. I, 254; Wiedemann, Auss. Zw. I, 314, 82. — N. W. Territory (Say).

***edititia** Say, J. Acad. Phil. VI, 157; Compl. Wr. II, 353. — No locality.

***flaviceps** Loew, Centur. VIII, 29. — Tamaulipas.

floridana Macquart, Dipt. Exot. 4^e Suppl. 112, 89; Tab. X, f. 14. — Florida.

***fulviana** Say, Long's Exped. App. 372, 3; Compl. Wr. I, 253; Wiedemann, Auss. Zw. I, 290, 47. — North Western States and British Possessions; Georgetown, Colo.

***fulvohirta** Wiedemann, Dipt. Exot. I, 149, 46; Auss. Zw. I, 308, 73; Macq. Dipt. Exot. II, 1, 69, 41; Meigen, Syst. Besch. II, 158, 26; Tab. XVII, f. 11 (*A. cypris*, erroneously described as European). — Middle States.

Anthrax confacies Macquart, Dipt. Exot. 4^e Suppl., 112, '8; Tab. X, f. 13. — Virginia.

- Anthrax separata* Walker, Dipt. Saund., 177.
fuscipennis Macquart, Hist. Nat. Dipt. I, 410, 33. — North America.
gracilis Macquart, Dipt. Exot. II, 1, 76, 64; Tab. XXI, f. 1. — Philadelphia.
- * *haleyon* Say, Long's Exp. App. 371 (*Alcyon*); Compl. Wr. I, 252; Wiedemann, Auss. Zw. I, 288, 44; Tab. III, f. 6; Macquart, Dipt. Exot. II, 1, 68; Tab. XIX, f. 6. — North Western States and British Possessions; Colorado. ⁽¹⁵¹⁾
- * *hypomelas* Macquart, Dipt. Exot. II, 1, 76, 63; Tab. XXI, f. 1. — North America (Macq.); Pennsylvania, Wisconsin. ⁽¹⁵⁰⁾
- * *lateralis* Say, J. Acad. Phil. III, 42, 2; Compl. Wr. II, 59; Wiedemann, Auss. Zw. I, 318, 89. — Atlantic States; Colorado.
Anthrax Bastardi Macquart, Dipt. Exot. II, 1, 60, 13. ⁽¹⁵⁰⁾
- * *lucifer* Fabricius, System. Ent. 759, 13; Mant. Ins. II, 329, 21 (*Bibio*); Ent. System. IV, 262, 21; System. Antl. 126, 40; Wiedemann, Dipt. Exot. I, 142, 36; Auss. Zw. I, 294, 53; Bigot, in R. de la Sagra etc. 794. — West Indies; Georgia; Texas (see O. Sacken, Western Diptera 240).
Anthrax fumiflamma Walker, Dipt. Saund., 184.
- * *mucorea* Loew, Centur. VIII, 43. — Nebraska.
- * *nigricauda* Loew, Centur. VIII, 38. — Massachusetts (Lw.); Canada.
- * *palliateda* Loew, Centur. VIII, 32. — Illinois.
 (?) *Anthrax incisa* Walker, Dipt. Saund., 187. — North America.
- * *parvicornis* Loew, Centur. VIII, 36. — Illinois.
- * *pertusa* Loew, Centur. VIII, 28. — Western Texas.
- * *serobiculata* Loew, Centur. VIII, 39. — Illinois.
- * *sinuosa* Wiedemann, Dipt. Exot. I, 147, 42; Auss. Zw. I. 301, 64; O. Sacken, Western Dipt., 239. — Georgia (Wied.); Southern and Middle States; California.
Anthrax concisa Macquart, Dipt. Exot. II, 1, 68, 37. — Carolina (!).
Anthrax nycthemera Macquart (nec Hoffmannsegg), Dipt. Exot. II, 1, 67, 33 (!).
Anthrax assimilis Macquart, Dipt. Exot. Suppl. I, 114, 73. — Galveston, Texas.
- * *stenoazona* Loew, Centur. VIII, 40. — Illinois.
- * *tegminipennis* Say, Long's Exped. App. 371, 2; Compl. Wr. I, 253; Wied. Auss. Zw. I, 289, 46. — N. W. Territory (Say); Iowa; Brit. N. America; Maine.
- * *vestita* Walker, List, etc. II, 258. — Nova Scotia.
- * *alpha* O. Sacken, Western Dipt., 239. — Sierra Nevada, Cal.; Cheyenne, Wyo.
- * *curta* Loew, Centur. VIII, 35. — California.
- * *diagonalis* Loew, Centur. VIII, 33. — California.
- * *fuliginosa* Loew, Centur. VIII, 31. — California.
- * *molitor* Loew, Centur. VIII, 42. — California.
- (?) *abbreviata* Wiedemann, Auss. Zw. II, 637, 49. — Mexico.
- * *adusta* Loew, Centur. VIII, 41. — Cuba.

- Astarte* Wiedemann, Auss. Zw. II, 637, 48. — Mexico.
- **bigradata* Loew, Centur. VIII, 37. — Cuba.
- castanea* Jaenicke, Neue Exot. Dipt. 30; Tab. II, f. 15 (wing). — Mexico.
- eyanoptera* Wiedemann, Auss. Zw. II, 638, 51. — Mexico.
- delicatula* Walker, List, etc. II, 266. — Jamaica.
- faunus* Fabricius, System. Antl. 126, 38; Dipt. Exot. I, 139, 30; Auss. Zw. I, 292, 50; Macquart, Dipt. Exot. II, 1, 75, 61; Tab. XXI, f. 1. — West Indies.
- funebis* Macquart, Dipt. Exot. II, 1, 66, 30; Tab. 21, f. 10. — San Domingo.
- gorgon* Fabricius, System. Antl. 126, 41; Wiedemann, Auss. Zw. I, 303, 67. — West Indies.
- Nero* Fabricius, System. Antl. 127, 45; Wiedemann, Dipt. Exot. I, 149, 47; Auss. Zw. 316, 85. — West Indies.
- nudiuscula* Thomson, Eug. Resa, etc., 482. — Panama.
- paradoxa* Jaenicke, Neue Exot. Dipt. 31; Tab. II, f. 16 (wing). — Mexico.
- **proboscidea* Loew, Centur. VIII, 27. — Sonora.
- pusio* Macquart, Dipt. Exot. II, 1, 76, 62; Tab. XXI, f. 1; Bigot, R. de la Sagra etc. 794. — Cuba.
- quinquepunctata* Thomson, Eug. Resa, etc. 484. — Panama.
- **sagata* Loew, Centur. VIII, 34. — Matamoras.
- translata* Walker, Dipt. Saund., 182. — West Indies.
- trifigurata* Walker, Trans. Ent. Soc. N. Ser. V, 285. — Haity.

Hemipenthes.

Loew, Centur. VIII, 44; 1869.

- **morioides* Say, J. Acad. Phil. III, 42, 1; Compl. Wr. II, 58 (*Anthrax*); Wiedemann, Auss. Zw. I, 309, 75 (*id.*). — Missouri (Say).
- seminigra* Loew, Centur. VIII, 44. (¹⁷²). — Saskatchewan; Canada.

Argyramoeba.

- Argyromoeba* Schiner, Wien. Ent. Monatschr. 1860; amended by Loew, in Centur. II, 290.
- **albofasciata* Macquart, Dipt. Exot. II, 1, 67, 34; Tab. XXI, f. 12 (*Anthrax*). — Georgia (Macq.).
- Anthrax analis* Macquart, Hist. Nat. Dipt. I, 407, 25 (change of name by Macq.).
- **analis* Say, J. Acad. Phil. III, 45, 4; Compl. Wr. II, 60 (*Anthrax*); Wiedemann, Auss. Zw. I, 313, 80 (*id.*). — Atlantic States and Canada; Georgia (Say); Massachusetts, Illinois, Maryland etc.
- Anthrax georgicu* Macquart, Hist. Nat. Dipt. I, 406, 19; Dipt. Exot. II, 1, 68, 38; Tab. 21, f. 11 (!). (¹⁷³).
- **antecedens* Walker, Dipt. Saund. 193 (*Anthrax*). — United States (Walk.).
- **argyropyga* Wiedemann, Auss. Zw. I, 313 (*Anthrax*) male. — (No habitat in Wied.): Virginia; Georgia.
- Argyramoeba contigua* Loew, Centur. VIII, 50 (*female*).

- ***Cephus** Fabricius, System. Antl. 124, 25 (*Anthrax*); Wiedemann, Auss. Zw. I, 297, 58 (*id.*); Macquart, Dipt. Exot. II, 59, 12 (*id.*). — South America (Fabr., Wied.); Georgia; Virginia.
- ***fur** O. Sacken, Western Dipt., 244. — Texas. ⁽¹⁵⁴⁾.
- ***limatulus** Say, J. Acad. Phil. VI, 157; Compl. Wr. II, 354 (*Anthrax*). — Indiana (Say); Colorado (?); California (?); compare O. Sacken, Western Dipt., 243.
- ***Oedipus** Fabricius, System. Antl. 123, 22 (*Anthrax*); Wiedemann, Dipt. Exot. I, 124, 8 (*id.*); Auss. Zw. I, 262, 12 (*id.*). — United States (reaches quite far in the N. W. of the Brit. Possessions; according to Schiner, occurs also in South America); Mexico (Coll. Bellardi). *Anthrax irrorata* Say, J. Acad. Phil. III, 46, 6; Compl. Wr. II, 61. *Anthrax irrorata* Macquart, Dipt. Exot. II, 1, 60; Tab. XX, f. 6.
- ***obsoleta** Loew, Centur. VIII, 47. — Missouri.
- ***pauper** Loew, Centur. VIII, 48. — Illinois.
- ***Pluto** Wiedemann, Auss. Zw. I, 261, 11 (*Anthrax*); O. Sacken, Western Dipt., 244. — Kentucky (Wied.); occurs from Texas to Canada.
- ***Simson** Fabricius, System. Antl. 119, 5 (*Anthrax*); Wiedemann, Dipt. Exot. I, 122, 6 (*id.*); Auss. Zw. I, 259, 9; Tab. III, f. 2 (*id.*); Macquart, Dipt. Exot. II, 1, 59, 11 (*id.*). — Atlantic States; also in Columbia, South America (Schiner, Novara, 120).
- Anthrax scripta* Say, J. Acad. Phil. III, 43, 3; Compl. Wr. II, 59. *Nemotelus tigrinus* Degeer, VI, Tab. 29, f. 11 [Wied.].
- ***stellans** Loew, Centur. VIII, 46. — Oregon.
- ***Delila** Loew, Centur. VIII, 45. — California.
- ***euplaues** Loew, Centur. VIII, 49. — Cuba.
- (?) **disjuncta** Wiedemann, Auss. Zw. II, 639, 53 (*Anthrax*). — Mexico.
- Gideon** Fabricius, System. Antl. 125, 27 (*Anthrax*); Wiedemann, Auss. Zw. I, 311, 79 (*id.*). — South America (Fabr., Wied.); Jamaica (Walker).
- Leucothoa** Wiedemann, Auss. Zw. II, 638, 50 (*Anthrax*). — Mexico.

Triodites.

O. Sacken, Western Dipt., 245; 1877.

- ***mus** O. Sacken, Western Dipt., 246. — California, Utah.

Lomatia.

Meigen, System. Besch. VI, 324; 1830; *Stygia* Meig. (preocc.); *Stygides* Latreille, Fam. Natur. 1825, 491.

- elongata** Say, J. Acad. Phil. III, 41, 1; Compl. Wr. II, 58 (*Stygia*); Wiedemann, Auss. Zw. I, 315 and 561; Tab. II, f. 6. — Pennsylvania. ⁽¹⁵⁵⁾.

Oncodocera.

Macquart, Dipt. Exot. II, 1, 83; 1840.

- ***leucoprocta** Wiedemann, Auss. Zw. I, 330 (*Malio*) *male*. — No locality. (Wied.); Georgia; Virginia, Illinois, Wisconsin, Kentucky, Mexico.

Oncodocera dimidiata Macquart, Dipt. Exot. II, 1, 84 (*femal.*); Tab. 15, f. 1.

Anthrax terminalis Wiedemann, Auss. Zw. II, 639. — Mexico (!).

**valida* Wiedemann, Auss. Zw. II, 636, 47 (*Anthrax*). — Mexico.

Anisotamia eximia Macquart, Dipt. Exot. 4^e Suppl. 115; Tab. XI, f. 2 [?]. ⁽¹⁵⁶⁾.

Leptochilus.

Loew, Centur. X, 40; 1872.

**modestus* Loew, Centur. X, 40. — Texas.

Aphoebantus.

Loew, Centur. X, 39; 1872.

**cervinus* Loew, Centur. X, 39. — Texas.

Bombylius. ⁽¹⁵⁷⁾.

Linné, Fanna Suecica; 1761.

**atriceps* Loew, Centur. IV, 49. — Florida, Virginia (Loew); New York; Connecticut (M. C. Z.).

**fratellus* Wiedemann, Auss. Zw. I, 583, 17. — Georgia (Wied.); Northern States and Brit. Possessions (M. C. Z.).

Bombylius vicinus Macquart, Dipt. Exot. II, 1, 98, 30 [Loew, Neue Beiträge etc. III, 14].

Bombylius albipectus Macquart, Dipt. Exot. 5^e Suppl. 82, 71; Tab. IV, f. 10. — Baltimore.

Bombylius aequalis Harris (nec Fab.), Ins. Injur. to Veget. 3^d edit. 606 f. 263. ⁽¹⁵⁸⁾.

Bombylius major Kirby (nec Linné), Fauna Bor. Amer. Ins. 312, 1.

**mexicanus* Wiedemann, Dipt. Exot. I, 166, 10; Auss. Zw. I, 333, 11; Loew, Neue Beiträge etc. III, 24. — Middle and Southern States; Mexico.

(?) *Bombylius fulvibasis* Macquart, Dipt. Exot. 5^e Suppl. 82, 72 [Loew *in litt.*]. ⁽¹⁵⁹⁾.

Bombylius philadelphicus Macquart, Dipt. Exot. II, 1, 99, 33; Tab. VI, f. 3 and Tab. VII, f. 3 [Loew *in litt.*].

**pulchellus* Loew, Centur. IV, 47. — Illinois.

**pygmaeus* Fabricius, Mant. Ins. II, 367, 13; Ent. System. IV, 411, 19; System. Antl. 135, 32; Olivier, Encycl. Méth. I, 328, 22; Wiedemann, Auss. Zw. I, 351, 34; Lamarck, Anim. sans vert. III, 407, 4; Kirby, Fauna boreali-americana, Ins, 312, 2. — Atlantic States and Brit. Possessions (M. C. Z. has a specimen from Virginia).

**validus* Loew, Centur. IV, 48 — Illinois; Virginia (Lw.); New York, Georgia.

**varius* Fabricius, System. Antl. 132, 17; Wiedemann, Dipt. Exot. I, 163, 6; Auss. Zw. I, 335, 7; Loew, Neue Beitr. etc. III, 29. — Middle States.

- **albicapillus* Loew, Centur. X, 42; O. Sacken, Western Dipt., 249. — Marin and Sonoma Co., Cal.
- **aurifer* O. Sacken, Western Dipt., 249. — Sierra Nevada, Cal.
- **cachinnans* O. Sacken, Western Dipt., 250. — Sonoma Co., Cal.
- **lanceifer* O. Sacken, Western Dipt. 251., — San Francisco; Yosemite Valley.
- **metopium* O. Sacken, Western Dipt., 249. — Marin Co., Cal.
- **major* Linné, Fabricius, Meigen, etc.; O. Sacken, Western Dipt., 243. — Europe and California.
- bicolor* Loew, Wien. Ent. Monatschr., V, 34. — Cuba.
- **haemorrhoidicus* Loew, Centur. IV, 46. — Cuba.
- helvus* Wiedemann, Dipt. Exot. I, 164, 6 *b*; Auss. Zw. I, 336, 8. — Mexico.
- plumipes* Drury, Illustr. etc. II; Tab. XXXIX, f. 3; Wiedemann, Auss. Zw. I, 351, 50. — Jamaica.
- **ravus* Loew, Centur. IV, 50. — Matamoras.
- **semirufus* Loew, Centur. X, 41. — San Domingo.

Comastes.

O. Sacken, Western Dipt., 256; 1877. (160).

- **robustus* O. Sacken, Western Dipt., 257. — Waco, Texas.
- rufus* Olivier, Encycl. Méth. I, 327, 8 (*Bombylius*). — West Indies.
- Bombylius basilaris* Wiedemann, Zool. Magaz. III, 46, 7 *b*;
Dipt. Exot. I, 164, 7; Auss. Zw. I, 335 [Loew, Neue Beitr.
etc., III, 29, 51].

Systoechus.

Loew, Neue Beitr. etc., III, 34; 1855 (ex parte); O. Sacken, Western Dipt., 250—253.

- **candidulus* Loew, Centur. IV, 51; O. Sacken, Western Dipt., 253. — Wisconsin (Lw.); Illinois, Kansas.
- **solitus* Walker, List, etc. II, 288 (*Bombylius*); O. Sacken, Western Dipt., 253. — Georgia, Florida.
- **vulgaris* Loew, Centur. IV, 52; O. Sacken, Western Dipt., 253. — Nebraska (Lw.); Iowa; Colorado; Illinois.
- **oreas* O. Sacken, Western Dipt., 254. — Sierra Nevada, Cal.

Anastoechus.

O. Sacken, Western Dipt., 251; 1877.

- **barbatus* O. Sacken, Western Dipt., 252. — Cheyenne, Wyoming; the same, or a similar species, all over the United States.

Pantarbes.

O. Sacken, Western Dipt., 254; 1877.

- **capito* O. Sacken, Western Dipt., 256. — Sonoma Co., Cal.

Sparnopolius.

Loew, Neue Beitr. etc., III, 43; 1855.

- * *brevicornis* Loew, Centur. X, 43; O. Sacken, Western Dipt., 259. — Texas.
- * *coloradensis* Grote, Proc. Ent. Soc. Phil. VI, 445; O. Sacken, Western Dipt., 259; — Colorado.
- cumatilis* Grote, Proc. Ent. Soc. Phil. VI, 445. — Colorado.
- * *fulvus* Wiedemann, Dipt. Exot. I, 172, 22 (*Bombylius*); Auss. Zw. I, 347, 27 (*id.*); Loew, Neue Beitr. etc., III, 43. — Atlantic States.
- Bombylius Lherminieri* Macquart, Dipt. Exot. II, 1, 103, 44 [!]; Tab. VII, f. 7.
- Bombylius brevirostris* Macquart, Dipt. Exot. II, 1, 103, 43 [!]. (¹⁶¹).
- apertus* Macquart, Dipt. Exot. 2^e Suppl. 54, 50. (*Bombylius*). — Guadeloupe [Loew *in litt.* supposes this to belong to *Dischistus*].

Lordotus.

Loew, Centur. IV, 53; 1863.

- * *gibbus* Loew, Centur. IV, 53; O. Sacken, Western Dipt., 258. — Matamoras (Lw.); Colorado; California.
- Adelidea flara* Jaenicke, Neue Exot. Dipt. 39. — Mexico. (¹⁶²).
- * *planus* O. Sacken, Western Dipt., 258. — California.

Ploas.

Latreille, Dict. d'hist. nat. Vol. XXIV; 1804.

Meigen, System. Besch. II, Tab. 19, f. 6.

- pictipennis* Macquart, Dipt. Exot. II, 1, 107, 2; Tab. IX, f. 3. — Carolina.

- * *amabilis* O. Sacken, Western Dipt., 261. — Yosemite Valley, Cal.
- * *atrátula* Loew, Centur. X, 44. — California.
- * *fenestrata* O. Sacken, Western Dipt., 260. — California.
- * *nigripennis* Loew, Centur. X, 45. — California.
- * *obesula* Loew, Centur. X, 46. — California.
- * *rufula* O. Sacken, Western Dipt., 261. — California.
- * *limbata* Loew, Centur. VIII, 51. — New Mexico.

Paracosmus.

O. Sacken, Western Dipt., 262; 1877; *Allocotus* Loew, Centur. X, 48; 1872. (¹⁶³).

- * *Edwardsii* Loew, Centur. X, 48 (*Allocotus*). — San Francisco, Cal.

Phthiria.

Meigen in Illig. Mag. II, 268; 1803; *Pocilogathus* Jaenicke, Neue Exot. Dipt., 43.

- punctipennis* Walker, List, etc. II, 294. — Georgia.

- **sulphurea* Loew, Centur. III, 18; O. Sacken, Western Dipt., 262. — New Jersey (Lw.); Texas and Colorado.
- **scelopax* O. Sacken, Western Dipt., 263. — Manitou, Colorado.
- **egerminans* Loew, Centur. X, 47. — California.
- **humilis* O. Sacken, Western Dipt., 264. — Sonoma Co., California.
- **notata* Loew, Centur. III, 19. — California.
- thlipsomyzoides* Jaenicke, Neue Exot. Dipt. 43; Tab. I, f. 11 (*Pocilognathus* nov. gen.). — Mexico. (¹⁶⁴).

Geron.

Meigen, System. Besch. II, 223; 1820.

- **calvus* Loew, Centur. IV, 54. — New York.
- holosericeus* Walker, List, etc. II, 295. — Georgia.
- **macropterus* Loew, Centur. IX, 76. — New York.
- **senilis* Fabricius, Ent. System. IV, 411, 17; System Antl. 135, 31 (*Bombylius*); Wiedemann, Auss. Zw. I, 357, 1; Macquart, Dipt. Exot. Suppl. I. 119. — West Indies (Wied.); Galveston, Texas (Macq.).
- **subauratus* Loew, Centur. IV, 55; compare also IX, 77, Nota. — Pennsylvania.
- **vitripennis* Loew, Centur. IX, 77. — Middle States.
- **albidipennis* Loew, Centur. IX, 78. — California.
- insularis* Bigot, in R. de la Sagra etc. 792. (*Bombylius*). — Cuba.
- rufipes* Macquart, Dipt. Exot. Suppl. I, 119. — Yucatan.

Systropus.

Wiedemann, Nova Dipt. Genera, 1820; *Cephenus* Latreille, Fam. Natur. 1825, 496.

- **maer* Loew, Centur. IV, 56; about the larva see O. Sacken, Western Dipt., 265. — Atlantic States (I have seen it from Kansas as the most western locality).
- **foenoides* Westwood, Magazin de Zoologie 1842. Ins. Tab. 90. — The same in Trans. Ent. Soc. London 1876, 578. — Mexico.

Lepidophora.

Westwood, Lond. and Edinb. Phil. Mag. 1835.

- **aegeriiformis* Westwood, Lond. and Edinb. Phil. Mag. 1835; VI, 447; Macquart, Dipt. Exot. Suppl. I, 115, 1; Tab. X, f. 1; Gray, in Griffith's Anim. Kingd. XV, Ins. 2, 779; Tab. 126, f. 6 (*Ploas*). — Georgia; Illinois; Kansas.
- appendiculata* Macquart, Dipt. Exot. Suppl. I, 118, 2; Tab. XX, f. 4 (*Toxophora*). — Galveston, Texas.
- ledipocera* Wiedemann, Auss. Zw. I, 360, 1; Tab. V, f. 4 (*Toxophora*); Macquart, Dipt. Exot. II, 1, 119; ibid. Suppl. I, 119. — No patria (Wied.); North America? (Macq.).

Toxophora.

Meigen, in Illig. Mag. II. 270; 1803.

- * **Amphitea** Walker, List, etc. II, 298; O. Sacken, Western Dipt. 267. — Florida (Walk.); Middle and Southern States.
- americana** Guérin, Iconogr. etc. Insectes, Tab. 95, f. 1 (No description). — North America.
- leucopyga** Wiedemann, Auss. Zw. I, 361, 2; Macquart, Dipt. Exot. II, 1, 117; Tab. XIII, f. 1. — No locality in Wiedemann; Carolina (Macq.); Georgia (Walker, List, etc. II, 298 „Synon. of *T. fulva*“⁽¹⁶⁷⁾).
- Toxophora fulva* Gray, Griffith's Anim. Kingd. XV, Ins. 2, 779; Tab. 126, f. 5.
- * **fulva** O. Sacken (non Gray), Western Dipt., 267. — Georgia.
- * **virgata** O. Sacken, Western Dipt., 266. — Texas, Georgia.

Epibates.

O. Sacken, Western Dipt. 268; 1877. ⁽¹⁶⁶⁾.

- funestus** O. Sacken, Western Dipt., 271. — White Mts., N. H.
- Harrisii** O. Sacken, Western Dipt., 273. — Atlantic States (?).
- * **niger** Macquart, Hist. Nat. Dipt. I, 390 (*Apatomyza*); Dipt. Exot. II, 1, 111, 1; Tab. IV, f. 1 (*id.*); O. Sacken, Western Dipt., 273. — Georgia. ⁽¹⁶⁷⁾.
- Cyllenia aegiale* Walker, List, etc. II, 296 and *ibid.* IV, 1154.
- * **luctifer** O. Sacken, Western Dipt., 271. — Vancouver Isl.
- * **magnus** O. Sacken, Western Dipt., 272. — Vancouver Isl.
- * **marginatus** O. Sacken, Western Dipt., 272. — San Francisco, Cal.
- * **muricatus** O. Sacken, Western Dipt., 272. — Sierra Nevada, Cal.; Colorado Mts. (9000 feet altitude; Morrison).
- Osten Sackenii** Burgess, Proc. Boston Soc. N. H., 1858, 323; Tab. IX, f. 1. — Southern Colorado; Upper Leavenworth Valley, Kansas.

Thevenemyia.

Bigot, Bullet. Soc. Ent. de France 1875, CLXXIV. ⁽¹⁶⁸⁾.

californica Bigot, l. c. — California.

FAMILY THEREVIDAE.

Psilocephala.

Zetterstedt, Ins. Lapp. 525, Nota; 1840; Dipt. Scand. I, 211.

- * **erythrura** Loew, Centur. IX, 75. — Middle States.
- * **melampodia** Loew, Centur. VIII, 12. — Illinois.
- * **munda** Loew, Centur. VIII, 13. — Wisconsin.
- * **melanoprocta** Loew, Centur. VIII, 15. — Northern United States.
- * **nigra** Say, J. Acad. Phil. III, 40, 2; Compl. Wr. II, 57 (*Thereva*); Wiedemann, Auss. Zw. I, 235, 12 (*id.*). — United States.

- Thereva haemorrhoidalis* Macquart; Dipt. Exot. II, 1, 26, 9 (♂).
 **notata* Wiedemann, Dipt. Exot. I, 114, 8; Auss. Zw. I, 236, 14
 (*Thereva*). — Georgia.
 **pictipennis* Wiedemann, Dipt. Exot. 113, 6 (*Thereva*); Auss. Zw. I,
 235, 11 (*id.*). — Georgia.
 **plataneala* Loew, Zeitschr. für Ges. Naturw. Dec. 1876., 321. — Texas.
 **rufiventris* Loew, Centur. VIII, 17. — Nebraska
 **scutellaris* Loew, Centur. IX, 74. — Distr. Columbia.
 **variegata* Loew, Centur. IX, 73. — Canada.
 **costalis* Loew, Centur. VIII, 16. — California.
 **laevigata* Loew, Zeitschr. für Ges. Naturw. Dec. 1876, 319. — San
 Francisco.
 **longipes* Loew, Centur. VIII, 11. — Cuba.
nigra Bellardi, Saggio, etc. II, 92 (Dr. Schiner, in Novara etc. 146,
 identifies this species with one from Chile, but changes the name
 for *P. pentoptera* on account of *P. nigra* Say). — Mexico.
 **platycera* Loew, Centur. II, 250, line 3 from bottom
Thereva laticornis Loew, Centur. VIII, 14. — Cuba [change of
 name by the author].
univittata Bellardi, Saggio, etc. II, 99. — Mexico.
Sumichrasti Bellardi, Saggio, etc. II, 91. — Mexico.

Thereva.

Latreille, Précis etc. 1796; *Thereva* (Loew).⁽¹⁶⁸⁾.

- **albiceps* Loew, Centur. IX, 69. — Red River of the North; Lake
 Winnipeg.
albifrons Say, J. Acad. Phil. VI, 156; Compl. Wr. II, 353. —
 Indiana.
 **candidata* Loew, Centur. VIII, 10. — Northern United States;
 Canada.⁽¹⁶⁹⁾
corusca Wiedemann, Auss. Zw. I, 232, 7. — East Florida,
Thereva tergissa Say, J. Acad. Phil. III, 39, 1 (Compl. Wr. II, 57).
 **flavicincta* Loew, Centur. IX, 70. — Northern Wisconsin River;
 White Mts., N. H.
frontalis Say, Long's Exped. App. 370; Compl. Wr. I, 252; Wiede-
 mann, Auss. Zw. I, 230, 2. — N. W. Territory (Say).
 **gilvipes* Loew, Centur. IX, 71. — Massachusetts.
 **strigipes* Loew, Centur. IX, 72. — Lake Winnipsg.
ruficornis Macquart, Dipt. Exot. II, 1, 25, 8. — Carolina.
 **comata* Loew, Centur. VIII, 9. — California.
 **fnucata* Loew, Centur. X, 37. — California.
 **hirticeps* Loew, Berl. Ent. Zool. 1874, 382. — San Francisco.
 **melanoneura* Loew, Centur. X, 36. — California.
 **melanophleba* Loew, Zeitschr. f. Ges. Naturw. 1876, 317. — San
 Francisco.
 **vialis* O. Sacken, Western Dipt. 274. — Yosemite Valley, Calif.

crassicornis Bellardi, Saggio, etc. II, 88; Tab. II, f. 16. — Mexico.
argentata Bellardi, Saggio, etc. II, 89. — Mexico.

Observation. Mr. Walker's *Therevae*:

conspicua Walker, List, etc. I, 223. — Nova Scotia.

germana Walker, List, etc. I, 222. — Florida.

nervosa Walker, List, etc. I, 223. — Georgia.⁽¹⁷⁰⁾

senex Walker, List, etc. I, 224. — Nova Scotia.

varia Walker, List, etc. I, 221. — Florida.

vicina Walker, List, etc. I, 222. — Nova Scotia.

Thereva plagiata (Harris) Walker is *Stichopogon trifasciatus* (Say).

These species are represented in the Brit. Mus. by a single specimen each, except *T. germana*, of which there are two. Most of them will coincide I think with Say's and Loew's species; the others will hardly be recognizable from Mr. Walker's descriptions.

Xestomyza.

Wiedemann, Nova Dipt. Genera, 1820.

**planiceps* Loew, Centur. X, 38. — California.

Observation. The genera *Baryphora* Loew, Stett. Ent. Z. 1844 p. 123; Tab. II, f. 1—5, and *Cionophora* Egger, Verh. Zool. Bot. Ver. 1854; Tab. I, f. 1, 2 are evidently related to *Xestomyza*, although Schiner has, perhaps prematurely, united them with it. The antennae of *Baryphora*, as figured by Loew, are remarkably like those of *Tabuda*, but look very different from the figure of the antennae of *Cionophora*.

Tabuda.

Walker, Dipt. Saund., 197; 1850—56.

**fulvipes* Walker, Dipt. Saund., 197; Tab. VI, f. 4. — New Jersey (Evelt, Proc. Ent. Soc. Phil. I, 217); (Walker gives no locality); Georgia (coll. v. Roeder).

FAMILY SCENOPINIDAE.

Scenopinus.

Latreille, Hist. Nat. des Cr. et des Ins. XIV; 1804.⁽¹⁷¹⁾

**bulbosus* O. Sacken, Western Dipt., 275. — Missouri.

**fenestralis* Linné, Meigen, etc. — Europe and North America.

Scenopinus pallipes Say, J. Acad. Phil. III, 100; Compl. Wr. II, 86; Wiedemann, Auss. Zw. II, 233 [Loew, in Sillim. Journ. N. S. XXXVII, 318].

**laevifrons* Meigen, Loew, Verh. Zool. Bot. Ver. 1857. — Europe and North America. [The American specimens were identified by Loew; compare Sillim. Journ. l. c.]

**nubilipes* Say, J. Acad. Phil. VI, 170; Compl. Wr. II, 362. — Indiana (Say); Cuba; Florida [Loew, in litt.].

**albidipennis* Loew, Centur. VIII, 53. — Cuba.

Pseudatrichia.

O. Sacken, Western Dipt., 275; nomen novum vice *Atrichia*, Loew, Centur. VII, 76; 1866.

longurio Loew, Centur. VII, 76 (*Atrichia*). — Mexico.

FAMILY CYRTIDAE. (¹⁷²).**Acrocera.**

Meigen in Illiger's Magaz.; 1803.

**bimaculata* Loew, Centur. VI, 53. — Distr. Columbia.

bullata Westwood, Trans. Ent. Soc. V, 98. — New York.

fasciata Wiedemann, Auss. Zw. II, 16, 2; Erichson, Ent. I, 166, 4. — Georgia.

fumipennis Westwood, Trans. Ent. Soc. V, 98. — Georgia.

nigrina Westwood, Trans. Ent. Soc. V, 98. — Georgia.

obsoleta v. d. Wulp, Tijdschr. v. Ent. 2^e Ser. II, 139; Tab. III, f. 17. — Wisconsin.

subfasciata Westwood, Trans. etc. V, 98. — New York.

unguiculata Westwood, Trans. etc. V, 98. — Georgia.

Opsebius.

Costa, Rendic. di Soc. R. Borbon. Acad. d. Sc. V. 20; 1856.

Pithogaster Loew, Wien. Ent. Monatschr. I, 33, 1857. (¹⁷³).

**gagatinus* Loew, Centur. VI, 34. — Pennsylvania.

**sulphuripes* Loew, Centur. IX, 68. — Sharon Springs, N. Y.

**diligens* O. Sacken, Western Dipt., 278. — Vancouver's Isl.

**paucus* O. Sacken, Western Dipt., 279. — California.

Pialoidea.

Westwood, Trans. Ent. Soc. Lond. 1876, 514.

magna Walker, List, etc. III, 511 (*Cyrtus*). — Georgia.

Ocnaca.

Erichson, Entomogr.; 1840.

micans Erichson, Entomogr. I, 155, 1. — Mexico.

**helluo* O. Sacken, Western Dipt., 278. — Dallas, Texas.

Apelleia.

Bellardi, Saggio, etc. Append. 19, 1862.

vittata Bellardi, Saggio, etc. App. p. 19, fig. 12. — Mexico.

Pterodontia.

Gray, in Griffith's Anim. Kingd. 1832; see also Westwood, Tr. Ent. Soc. V.

analis Westwood, Trans. Ent. Soc. V, 97. — Georgia.

NB. There is another *Pt. analis* Macq. from New Granada.

flavipes Gray, in Griffith's Anim. Kingd. CXXVIII, f. 3; Westwood, Trans. Ent. Soc. V, 96. — Georgia.

**misella* O. Sacken, Western Dipt., 277. — Oregon.

Eulonchus.

Gerstaecker, Stett. Ent. Zeit.; 1856.

**marginatus* O. Sacken, Western Dipt., 277. — Napa Valley, California.

**sapphirinus* O. Sacken, Western Dipt., 276. — Sierra Nevada, California.

**smaragdinus* Gerstaecker, Stett. Ent. Z. 1856, 360; O. Sacken, Western Dipt., 276. — San Francisco, California.

**tristis* Loew, Centur. X, 19. — Coast Range Mts., California.

Lasia.

Wiedemann, Analecta etc.; 1824.

**Kletti* O. Sacken, in Lieut. Wheeler's Report Expl. and Surveys etc. Vol. V, Zool. 804; with woodcuts. — Camp Apache, Arizona.

Oncodes.

Matreille, Précis etc. 154; 1796.

**costatus* Loew, Centur. IX, 67. — Massachusetts.

**dispar* Macquart, Dipt. Exot. 5^e Suppl. 67, 1; Tab. II, f. 12 (*Henops*). — Baltimore.

**eugonatus* Loew, Centur. X, 18. — Texas.

**incultus* O. Sacken, Western Dipt., 279. — White Mts., N. H.

**pallidipennis* Loew, Centur. VI, 32. — Pennsylvania.

**melampus* Loew, Centur. X, 17. — California.

Philopota.

Wiedemann, Auss. Zw. II, 17; Tab. 9, f. 1; 1830.

Truquii Bellardi, Saggio, etc. I, 77; Tab. II, f. 20. — Mexico.

FAMILY EMPIDAE.

SECTION HYBOTINA.

Hybos.

Meigen, in Illiger's Magaz. II; 1803.

purpureus Walker, List, etc. III, 486. — Georgia.

reversus Walker, l. c. 487. — Trenton Falls.

subjectus Walker, l. c. 487. — Huds. B. Terr.

**triplex* Walker, List, etc. III, 486. — Trenton Falls. (174).

Hybos duplex Walker, List, etc. III, 486.

dimidiata Loew, Wien. Ent. Monatschr. V, 36. — Cuba.

dimidiata Bellardi, Saggio, etc. II, 97. — Mexico.

(This and the preceding species were published in the same year, 1861.)

Syneches.

Walker, Dipt. Saund., 165; 1850—56; Loew, Dipternfauna Südafrika's, 259;
Pterospilus Rondani. ⁽¹⁷⁵⁾.

**albonotatus* Loew, Centur. II, 18. — Distr. Columbia.

**pusillus* Loew, Centur. I, 25. — New York; Chicago.

**rufus* Loew, Centur. I, 24. — New York; Chicago.

**simplex* Walker, Dipt. Saund., 165; Tab. V, f. 7 (*Syneches*). — Atlantic States.

Syneches punctipennis v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 139;
 Tab. III, f. 18—21 [Loew, Zeitschr. f. Ges. Naturw. Vol. XXXVII, 115].

**thoracicus* Say, J. Acad. Phil. III, 76, 1; Compl. Wr. II, 68 (*Hybos*);
 Wiedemann, Auss. Zw. I, 538, 3 (*id.*); Macquart, Dipt. Exot. I,
 2, 156, 1; Tab. XIII, f. 1 (*id.*). — Atlantic States.

Syndyas.

Loew, Dipternfauna Südafrika's, 260; 1860. ⁽¹⁷⁵⁾.

**dorsalis* Loew, Centur. I, 26. — New York.

**polita* Loew, Centur. I, 27. — Carolina.

Brachystoma.

Meigen, System. Besch. III, 12; 1822.

**binummus* Loew, Centur. II, 16. — Distr. Columbia.

**nigrimana* Loew, Centur. II, 17. — Illinois.

**serrulata* Loew, Centur. I, 23. — Georgia; Ohio.

Observation. In a note to Centur. II, 17 Loew proposes for these three species the formation of a new genus, *Blepharoplecter*, distinguished by the first submarginal cell being closed

Ocydromia.

Meigen, System. Besch. II, 311; 1820.

peregrinata Walker, List, etc. III, 483. — Trenton Falls.

glabricula Fallen, Meigen, etc. — Europe and Sitka (Loew, *in litt.*).

SECTION EMPINA. ⁽¹⁷⁶⁾**Empis.**

Linné, Fauna Suecica; 1763; Meigen, System. Besch. III, 15.

Abeirus Walker, List, etc. III, 494. — Georgia.

Aghastus Walker, List, etc. III, 496. — Huds. B. Terr.

Amytis Walker, List, etc. III, 493. — New York.

**armipes* Loew, Centur. I, 32. — New York.

Colonia Walker, List, etc. III, 498. — Nova Scotia.

Cornus Walker, List, etc. III, 496. — Huds. B. Terr.

distans Loew, Centur. VIII, 54. — Georgia.

Eudamides Walker, List, etc. III, 493. — North America.

- geniculata** Kirby, N. Am. Zool. Ins. 311, 2. — British America.
laniventris Eschscholz, Ent. I, 113, 83; Wiedemann, Auss. Zw. II, 6, 12; Macquart, Dipt. Exot. I, 2, 162 (*Eriogaster* n. gen.). — Unalashka.
 ***labiata** Loew, Centur. I, 33. — Distr. Columbia.
 ***laevigata** Loew, Centur. V, 49. — White Mts., N. H.
 ***leptogastra** Loew, Centur. III, 30. — Distr. Columbia.
 ***longipes** Loew, Centur. V, 51. — Lake George, N. Y.; New Jersey.
luctuosa Kirby, N. Am. Zool. Ins. 311, 1. — British America.
 ***nuda** Loew, Centur. II, 20. — Illinois.
Ollus Walker, List, etc. III, 493. — Nova Scotia.
 ***obesa** Loew, Centur. I, 28. — Massachusetts.
 ***pallida** Loew, Centur. I, 30. — New York.
 ***poeeciloptera** Loew, Centur. I, 31. — New York.
 ***poplitea** Loew, Centur. III, 29. — Sitka.
reciproca Walker, Trans. Ent. Soc. N. S. IV, 147. — United States.
 ***rufescens** Loew, Centur. V, 52. — White Mts., N. H.
 ***sordida** Loew, Centur. I, 29. — Distr. Columbia.
 ***spectabilis** Loew, Centur. II, 21. — Maryland.
 ***stenoptera** Loew, Centur. V, 50. — White Mts., N. H.
 ***varipes** Loew, Centur. I, 34. — Pennsylvania.
 ***barbata** Loew, Centur. II, 19. — California.
atra Wiedemann, Auss. Zw. II, 1, 1. — St. Croix.
bicolor Bellardi, Saggio, etc. II, 98. — Mexico.
cyanea Bellardi, Saggio, etc. II, 98. — Mexico.
 ***spiloptera** Wiedemann, Auss. Zw. II, 5, 10. Mexico.
Empis picta Loew, Centur. III, 28 and Vol. I, 261, where the synonymy is acknowledged.
suavis Loew, Centur. VIII, 56. — Mexico (type in Berl. Mus.).
superba Loew, Wien. Ent. Mon. V, 36; Centur. VIII, 57. — Cuba.
totipennis Bellardi, Saggio, etc. II, 99. — Mexico.
violacea Loew, Centur. VIII, 55. — Mexico (type in Berl. Mus.).

Pachymeria.

- Stephens, System. Catal. 1829; Macquart, H. N. Dipt. I, 333, *Pachymerina*; but in Vol. II, 657 he adopts Stephens's earlier name.⁽¹⁷⁷⁾
 ***brevis** Loew, Centur. II, 22. — Distr. Columbia.
 ***pudica** Loew, Centur. I, 35; Wien. Ent. Monatschr. VIII, 12, 5 (the *Pachymeria tumida* quoted there as a synonym of *P. pudica*, does not exist). — Distr. Columbia.

Iteaphila.

- Zetterstedt, Ins. Lapponica 541; 1840.⁽¹⁷⁸⁾
 ***Macquartii** Zetterstedt, Ins. Lapponica 541. — Northern Sweden; also in North America (White Mts.; Quebec).

Microphorus.

Macquart, Dipt. du Nord etc. 140; 1827; *Trichina* Meigen. (¹⁷⁸).
drapetoides Walker, List, etc. III, 489. — Huds. B. Terr.

Rhamphomyia.

Meigen, System. Besch. III; 1822.

- Agasicles* Walker, List, etc. III, 499. — Huds. B. Terr.
americana Wiedemann, Auss. Zw. II, 8, 3. — North America.
Anaxo Walker, List, etc. III, 500. — Huds. B. Terr.
 * *angustipennis* Loew, Centur. I, 55. — New York.
 * *aperta* Loew, Centur. II, 27. — Illinois.
 * *basalis* Loew, Centur. V, 54. — White Mts., N. H.
 * *brevis* Loew, Centur. I, 52. — Distr. Columbia.
 * *candicans* Loew, Centur. V, 61. — White Mts., N. H.
 * *clavigera* Loew, Centur. I, 53. — New York.
cilipes Say, J. Acad. Phil. III, 95, 2; Compl. Wr. II, 83 (*Empis*);
 Wiedemann, Auss. Zw. II, 7, 2. — Ohio.
 * *conjuncta* Loew, Centur. I, 56. — Distr. Columbia.
Cophas Walker, List, etc. III, 499. — New York.
 * *corvina* Loew, Centur. I, 51. — New York.
 * *crassinervis* Loew, Centur. I, 59. — New York.
Dana Walker, List, etc. III, 502. — Huds. B. Terr.
Daria Walker, List, etc. III, 503. — New York.
 * *debilis* Loew, Centur. I, 45. — Saskatchewan.
 * *dimidiata* Loew, Centur. I, 36. — Maryland; Massachusetts.
Ecetra Walker, List, etc. III, 500. — Georgia.
 * *exigua* Loew, Centur. II, 32. — Illinois; Distr. Columbia.
expulsa Walker, Trans. Ent. Soc. N. S. IV, 148. — United States.
Ficana Walker, List, etc. III, 501. — Huds. B. Terr.
flavirostris Walker, List, etc. III, 501. — Huds. B. Terr.
 * *frontalis* Loew, Centur. II, 28. — Illinois.
 * *fumosa* Loew, Centur. I, 39. — New York; Distr. Columbia.
 * *gilvipes* Loew, Centur. I, 48. — New York; Illinois.
 * *glabra* Loew, Centur. I, 41. — Virginia; Illinois; Distr. Columbia.
 * *gracilis* Loew, Centur. I, 43. — Pennsylvania.
 * *hirtipes* Loew, Centur. V, 59. — White Mts., N. H.
 * *impedita* Loew, Centur. II, 31. — Illinois; Distr. Columbia.
 * *incompleta* Loew, Centur. III, 31. — Distr. Columbia.
 * *irregularis* Loew, Centur. V, 60. — White Mts., N. H.
laevigata Loew, Centur. I, 37. — Nebraska.
 * *leucoptera* Loew, Centur. I, 62. — Distr. Columbia.
 * *limbata* Loew, Centur. I, 60. — Distr. Columbia.
 * *litrata* Loew, Centur. I, 61. — Distr. Columbia.
 * *longicauda* Loew, Centur. I, 38. — Distr. Columbia.
 * *longicornis* Loew, Centur. I, 47. — Distr. Columbia.
 * *longipennis* Loew, Centur. I, 46. — Distr. Columbia.
 * *luctifera* Loew, Centur. I, 50. — New York.
 * *luteiventris* Loew, Centur. V, 57. — White Mts., N. H.

- ***macilenta** Loew, Centur. V, 55. — White Mts., N. H.
- Mallos** Walker, List, etc. III, 502. — Huds. B. Terr.
- Minytus** Walker, List, etc. III, 502. — Huds. B. Terr.
- ***mutabilis** Loew, Centur. II, 26. — Illinois.
- ***nana** Loew, Centur. I, 64. — Maryland.
- ***nigricans** Loew, Centur. V, 58. — White Mts., N. H.
- nigrita** Zetterstedt, Ins. Lapp. 567; Ståger, Groenl. Antl. 357, 22; Holmgren, Ins. Nordgroenl. 100. — Greenland.
- Empis borealis* Fabricius, Fauna Groenl. 211, 174 [Schiödtel].
- nitidivittata** Macquart, Dipt. Exot., 1^{er} Suppl. 97, 2. — Galveston, Texas.
- Phemius** Walker, List, etc. III, 500. — Huds. B. Terr.
- ***pectinata** Loew, Centur. I, 49. — Distr. Columbia.
- ***polita** Loew, Centur. II, 29. — Illinois; Distr. Columbia.
- ***priapulus** Loew, Centur. I, 54. — Maryland.
- pulehra** Loew, Centur. I, 40. — New York.
- ***pulla** Loew, Centur. I, 44. — Connecticut.
- ***pusio** Loew, Centur. I, 63. — Maryland.
- quinquelineata** Say, J. Acad. Phil. III, 95; Compl. Wr. II, 82 (*Empis*); Wiedemann, Auss. Zw. II, 7, 1. — Missouri.
- rufirostris** Say, J. Acad. Phil. III, 159; Compl. Wr. II, 355. — Indiana.
- ***rava** Loew, Centur. II, 25. — Illinois.
- ***rustica** Loew, Centur. V, 56. — White Mts., N. H.
- ***scelopacea** Say, J. Acad. Phil. III, 96, 3; Compl. Wr. II, 83 (*Empis*); Wiedemann, Auss. Zw. II, 8, 4. — Pennsylvania.
- ***sellata** Loew, Centur. I, 42. — Distr. Columbia.
- ***soecata** Loew, Centur. I, 67. — Mississippi.
- ***sordida** Loew, Centur. I, 58. — Distr. Columbia.
- ***testacea** Loew, Centur. II, 24. — Illinois; Maryland; Distr. Columbia.
- ***tristis** Walker, Trans. Ent. Soc. N. S. IV, 148. — United States.
- ***umbilicata** Loew, Centur. I, 65. — Pennsylvania; Maine („Mexico“ in the Centuries is an error).
- ***umbrosa** Loew, Centur. V, 53. — White Mts., N. H.
- ***ungulata** Loew, Centur. I, 66. — Maine („Mexico“ in the Centuries is erroneous).
- ***unimaculata** Loew, Centur. II, 33. — Illinois; Distr. Columbia.
- ***vava** Loew, Centur. I, 57. — Nebraska.
- ***vittata** Loew, Centur. II, 23. — Illinois.
- ***luctuosa** Loew, Centur. Vol. II, 290, line 2 from bottom. (Change of name.)
- Rhamphomyia lugens*, Loew, Centur. II, 30. — California.

Milara.

Meigen, System. Besch. III; 1822.

- ***atra** Loew, Centur. II, 42. — Illinois.
- ***basalis** Loew, Centur. II, 45. — Illinois.
- ***brevipila** Loew, Centur. II, 41. — Illinois.

- * *femorata* Loew, Centur. II, 35. — Maryland.
- * *gracilis* Loew, Centur. II, 44. — Pennsylvania.
- * *leucoptera* Loew, Centur. II, 43. — Florida.
- * *lutea* Loew, Centur. III, 33. — Distr. Columbia.
- * *macroptera* Loew, Centur. III, 32. — Distr. Columbia.
- migrata* Walker, List, etc. III, 491. — Huds. B. Terr.
- * *mutabilis* Loew, Centur. II, 40. — Illinois.
- * *nigriventris* Loew, Centur. II, 33. — Pennsylvania.
- plebeja* Walker, Trans. Ent. Soc. N. S. IV, 148. — United States
- * *seriata* Loew, Centur. V, 63. — White Mts., N. H.
- * *testacea* Loew, Centur. V, 64. — White Mts., N. H. (the typical specimens are from New Rochelle, N. Y.).
- transfuga* Walker, List, etc. III, 492. — Huds. B. Terr.
- * *tristis* Loew, Centur. V, 62. — White Mts., N. H.
- * *trivittata* Loew, Centur. II, 39. — Illinois.
- * *umbrosa* Loew, Centur. II, 34. — Illinois.
- * *unicolor* Loew, Centur. II, 37. — Maryland.
- * *velutina* Loew, Centur. II, 36. — Distr. Columbia.

Hormopeza.

Zetterstedt, Ins. Lapp. 540; 1840.

- * *brevicornis* Loew, Centur. V, 65. — Yukon River, Alaska.
- * *nigricans* Loew, Centur. V, 66. — Yukon River, Alaska.

Gloma.

Meigen, System. Besch. III, 14; 1822.

Phthia Walker, List, etc. III, 492. — Trenton Falls, N. Y. [„Is not a *Gloma*“; Loew *in litt.*]

- * *obscura* Loew, Centur. V, 68. — White Mts., N. H.
- * *rufa* Loew, Centur. V, 67. — White Mts., N. H.

Cyrtoma.

Meigen, System. Besch. IV, 1; 1824.

- * *femorata* Loew, Centur. V, 69. — White Mts., N. H.
- * *halteralis* Loew, Centur. II, 46. — Distr. Columbia.
- * *longipes* Loew, Centur. II, 47. — Illinois; Pennsylvania.
- * *pilipes* Loew, Centur. II, 48. — Illinois. Vid. Nr. 411.
- * *procera* Loew, Centur. V, 70. — Sitka.

Leptopeza.

Macquart, Dipt. du Nord etc.; 1827.

- * *flavipes* Meigen, System. Besch. II, 353. — Europe and North America (Saskatchewan Riv.).

SECTION TACHYDROMINA.

Stilpon.

Loew, Neue Beiträge VI, 34, line 21 from top; also p. 43; 1859. (¹⁷⁹).

- * *varipes* Loew, Centur. II, 58. — Pennsylvania.

Drapetis.

Meigen, System. Besch. III; 1822. ⁽¹⁷⁹⁾.

- **divergens* Loew, Centur. X, 62. — Texas.
- **gilvipes* Loew, Centur. X, 61. — Texas.
- **nigra* Meigen, Macquart, etc. — Europe and North America (according to Walker, List, etc. III, 511).
- **pubescens* Loew, Centur. II, 57. — New York.
- **unipila* Loew, Centur. X, 60. — Texas.

Tachydromia.

Meigen, Illiger's Magaz. 1803; System. Besch. III, 67, Divis. B (on the plate, the genus is called *Sicus*); Loew, Schles. Z. für Entom. 1863. *Platypalpus* Macquart, Dipt. du Nord etc.; Schiner, Fauna Austriaca. Compare note ⁽¹⁸⁰⁾.

All the species enumerated below were described by Dr. Loew as *Platypalpus*; but in the Centuries, Vol. II, page 289 he recommends to change the name for *Tachydromia*.

- **aequalis* Loew, Centur. V, 75. — Illinois.
- **Alexippus* Walker, List, etc. III, 510. — Huds. B. Terr.
- **apicalis* Loew, Centur. V, 79. — Pennsylvania.
- **debilis* Loew, Centur. III, 37. — Distr. Columbia.
- **discifer* Loew, Centur. III, 36. — Distr. Columbia.
- **flavirostris* Loew, Centur. V, 80. — White Mts., N. H.
- **laeta* Loew, Centur. V, 81. — White Mts., N. H.
- **lateralis* Loew, Centur. V, 78. — White Mts., N. H.
- **mesogramma* Loew, Centur. III, 38. — Distr. Columbia; New York.
- **pachycnema* Loew, Centur. V, 77. — Distr. Columbia; Tarrytown, New York.
- **trivialis* Loew, Centur. V, 76. — Maine; Distr. Columbia.
- **vicarius* Walker, Trans. Ent. Soc. N. Ser. IV, 149. — United States.

Bacis Walker, List, etc. III, 510. — Jamaica.

Phonentisca.

Loew, Centur. III, 35; 1863.

- **bimaculata* Loew, Centur. III, 35. — Sitka.

Tachypeza.

Meigen, System. Besch. VI, p. 341, 1830; and VII, p. 94, 1838 (*Tachydromia* Meig. Div. A.; *Tachydromia* Macquart, Schiner). ⁽¹⁸⁰⁾.

- **clavipes* Loew, Centur. V, 73. — Illinois.
- **fenestrata* Say, J. Acad. Phil. III, 95; Compl. Wr. II, 82 (*Sicus*); Wiedemann, Auss. Zw. II, 12, 1 (*Tachydromia*). — Middle States.
- **maculipennis* Walker, List, etc. III, 507 (*Tachydromia*). — Huds. B. Terr.
- **portaeicola* Walker, l. c. III, 506 (*Tachydromia*). — Huds. B. Terr.
- **postica* Walker, Trans. Ent. Soc. N. S. IV, 149 (*Tachydromia*). — United States.

- **pusilla* Loew, Centur. V, 74. — Illinois.
- **rapax* Loew, Centur. V, 71. — Illinois.
- **rostrata* Loew, Centur. V, 72. — White Mts., N. H.; New York.
- similis* Walker, List, etc. III, 506 (*Tachydromia*). — Huds. B. Terr.
- vittipennis* Walker, Trans. Ent. Soc. N. Ser. IV, 149 (*Tachydromia*). — United States.
- **Winthemi* Zetterstedt, Insecta Lapp 548; Dipt. Scand. I, 321. — Northern Europe; White Mts., N. H. (Found by me on the walls of the Half-Way House on Mount Washington).

Ardoptera.

Macquart, Dipt. du Nord etc.; 1827. (¹⁸¹).

- **irrorata* Fallen, Meigen, etc.; Walker, Ins. Brit. I, 103, 1; Tab. III, f. 5. — Europe and North America. [Loew *in litt.*]

Synamphotera.

Loew, Zeitschr. für Ges. Naturw. Vol. XI, 453; 1858; compare also the same, Beschr. Eur. Dipt. II, 255. (¹⁸²).

- **bicolor* Loew, Centur. III, 34. — Sitka.

Hemerodromia.

Meigen, System. Beschr. III, 1822. (¹⁸³).

- albipes* Walker, List, etc. III, 505. — Huds. B. Terr.
- **defecta* Loew, Centur. II, 55. — Distr. Columbia.
- **notata* Loew, Centur. II, 53. — Illinois; Pennsylvania.
- **obsoleta* Loew, Centur. II, 52. — Illinois; Maryland.
- precatória* Meigen, etc. — Europe and North America Huds. B. Terr. according to Walker, List, etc. III, 505).
- **scapularis* Loew, Centur. II, 54. — Maryland.
- superstitiosa* Say, Long's Exped. App. 376; Compl. Wr. I, 255; Wiedemann, Auss. Zw. II, 11, 1. — N. W. Territory (Say). (¹⁸⁴).
- **valida* Loew, Centur. II, 51. — Huds. B. Terr.
- **vittata* Loew, Centur. II, 56. — Distr. Columbia (Loew); Goat Isl., Niagara Falls.
- (?) *Ochthera empiformis* Say, J. Acad. Phil. III, 99; Compl. Wr. II, 85; compare Loew, Monogr. I, 159.

Clinocera.

Meigen, Illiger's Magaz. II, 271; 1803 (¹⁸⁵).

- **binotata* Loew, Zeitschr. für ges. Naturw. 1876, 325. — New York.
- **fuscipennis* Loew, Zeitschr. für ges. Naturw. 1876, 324. — White Mts., N. H.
- **lineata* Loew, Centur. II, 50. — Pennsylvania
- **simplex* Loew, Centur. II, 49. — Huds. B. Terr.
- (?) *Heliodromia longipes* Walker, List, etc. III, 504. — Huds. B. Terr.
- **conjuncta* Loew, Wiener Ent. Monatschr. IV, 79. — Middle States.
- **maculata* Loew, Wiener Ent. Monatschr. IV, 79. — Middle States.

FAMILY DOLICHOPODIDAE. ⁽¹⁸⁶⁾.**Hygroceleuthus.**

Loew, Neue Beitr. V, 1857; Monogr. II, 16.

- ***latipes** Loew, Neue Beitr. VIII, 5; Monogr. II, 17. — Red River of the North; Illinois.
- ***afflictus** O. Sacken, Western Dipt., 313. — Marine Co., California.
- ***crenatus** O. Sacken, Western Dipt., 312. — Sonoma Co., California.
- lamellicornis** Thomson, Eugenes Resa, 511 (*Dolichopus*); compare also O. Sacken, Western Diptera, 313. — California.

Dolichopus.

Latreille, Précis etc.; 1797.

Loew, Monogr. II, 18.

- ***acuminatus** Loew, Neue Beitr. VIII, 12, 4; Monogr. II, 34. — Illinois.
- ***albiciliatus** Loew, Centur. II, 59; Monogr. II, 31. — Illinois, Western New York.
- ***batillifer** Loew, Neue Beitr. VIII, 15, 10; Monogr. II, 45. — Atlantic States.
- ***bifRACTUS** Loew, Neue Beitr. VIII, 19, 17; Monogr. II, 53. — Northern United States.
- ***brevimanus** Loew, Neue Beitr. VIII, 14, 8; Monogr. II, 39. — Distr. Columbia.
- ***brevipennis** Meigen; Loew, Monogr. II, 37. — Europe; British North America (Fort Resolution).
- ***chrysostomus** Loew, Neue Beitr. VIII, 23, 24; Monogr. II, 67. — Distr. Columbia.
- ***comatus** Loew, Neue Beitr. VIII, 23, 25; Monogr. II, 69. — Middle States.
- ***cuprinus** Wiedemann, Auss. Zw. II, 230; Loew, Neue Beitr. VIII, 20, 19; Monogr. II, 55. — Atlantic States.
Dolichopus cupreus Say, J. Acad. Phil. III, 86, 9; Compl. Wr. II, 76. [Change of name by Wied.]
- ***detersus** Loew, Centur. VII, 79. — Western New York.
- ***dorycerus** Loew, Centur. V, 85; Monogr. II, 326. — White Mts., N. H.
- ***discifer** Stannius; Loew, Monogr. II, 71. — Europe; British North America; New York; White Mts., N. H.; Sitka.
Dolichopus tanyptus, Loew, Neue Beitr. VIII, 24, 26 [Loew].
- ***endactylus** Loew, Neue Beitr. VIII, 16, 11; Monogr. II, 46. — Massachusetts; New York.
- ***funditor** Loew, Neue Beitr. VI, 1, 22, 23; Monogr. II, 66. — Middle States.
- ***fulvipes** Loew, Centur. II, 61; Monogr. II, 61. — Illinois; White Mts., N. H.; New York.
- ***gratus** Loew, Neue Beitr. VIII, 11, 1; Monogr. II, 29. — New York; New Jersey.

- groenlandicus* Zetterstedt, Dipt. Scand. II, 528; Staeger, Groenl. Antl. 358, 23; Holmgren, Ins. Nordgroenl. 100. — Greenland.
- * *hastatus* Loew, Monogr. II, 59. — Sitka.
- * *incisuralis* Loew, Neue Beitr. VIII, 25, 28; Monogr. II, 74. — New York.
- * *laticornis* Loew, Neue Beitr. VIII, 12, 2; Monogr. II, 29. — Connecticut.
- * *lobatus* Loew, Neue Beitr. VIII, 24, 27; Monogr. II, 72. — Illinois; British North America.
- * *longimanus* Loew, Neue Beitr. VIII, 14, 7; Monogr. II, 39. — British North America and Northern United States.
- * *longipennis* Loew, Neue Beitr. VIII, 21, 20; Monogr. II, 57. — Middle States.
- * *luteipennis* Loew, Neue Beitr. VIII, 18, 15; Monogr. II, 51. — Distr. Columbia; Illinois.
- * *melanocerus* Loew, Centur. V, 86; Monogr. II, 330. — Canada.
- * *nudus* Loew, Monogr. II, 41. — Brit. North America (Fort Resolution).
- * *ovatus* Loew, Neue Beitr. VI, 13, 5; Monogr. II, 35. — Middle States; Illinois.
- * *pachynemus* Loew, Neue Beitr. VIII, 13, 6; Monogr. II, 36. — Middle States.
- * *palaestrius* Loew, Centur. V, 84; Monogr. II, 328. — White Mts., N. H.
- * *platyprosopus* Loew, Centur. VII, 80. — British North America.
- * *plumipes* Scopoli, Loew, Monogr. II, 60. — Europe; Sitka; Quebec.
- Dolichopus pennitarsis* Fallen (Loew, l. c.).
- * *praeustus* Loew, Centur. II, 62; Monogr. II, 68. — Illinois.
- * *pugil* Loew, Centur. VII, 77. — Canada; Massachusetts.
- * *quadrilamellatus* Loew, Centur. V, 83; Monogr. II, 331. — New Jersey.
- * *ramifer* Loew, Neue Beitr. VIII, 19, 16; Monogr. II, 52. — Northern United States, Nebraska, Lake Winnipeg.
- * *ruficornis* Loew, Neue Beitr. VIII, 21, 21; Monogr. II, 63. — Middle States.
- * *sarotes* Loew, Centur. VII, 81. — Illinois.
- * *scapularis* Loew, Neue Beitr. VIII, 22, 22; Monogr. II, 64. — Middle States.
- * *scoparius* Loew, Monogr. II, 70. — Northern Atlantic States.
- * *setifer* Loew, Neue Beitr. VIII, 12, 3; Monogr. II, 31. — Distr. Columbia; New York; Newport, R. J.
- * *setosus* Loew, Centur. II, 63; Monogr. II, 73. — Massachusetts.
- * *sexarticulatus* Loew, Monogr. II, 62. — Distr. Columbia.
- * *socius* Loew, Centur. II, 60; Monogr. II, 40. — Illinois; Western New York.
- * *splendidus* Loew, Neue Beitr. VIII, 14, 9; Monogr. II, 44. — Illinois.
- * *splendidulus* Loew, Centur. V, 82; Monogr. II, 327. — White Mts., N. H.
- * *Stenhammari* Zetterstedt, Dipt. Scand. II, 521. — Northern Sweden and Lapland; Sloop Harbor, Labrador, July 19. (A. S. Packard)
- * *subciliatus* Loew, Monogr. II, 43. — Brit. North America (Fort Resolution).
- * *tener* Loew, Neue Beitr. VIII, 17, 13; Monogr. II, 49. — Chicago.

- * *terminalis* Loew, Centur. VII, 78. — Western New York (Genesee).
- * *tetricus* Loew, Monogr. II, 33. — Brit. North America (Fort Resolution).
- * *tonsus* Loew, Neue Beitr. VIII, 16, 12; Monogr. II, 47. — Distr. Columbia.
- * *variabilis* Loew, Neue Beitr. VIII, 17, 14; Monogr. II, 50. — New York.
- * *vittatus* Loew, Neue Beitr. VIII, 20, 18; Monogr. II, 55. — Illinois; New York.
- * *xanthocnemus* Loew, Monogr. II, 21. — Sitka.
- aurifer* Thomson, Eug. Resa etc. 512.
- * *canaliculatus* Thomson, Eugenes Resa, 512; Ö. Sacken, Western Dipt. 315. — California (Marin Co.).
- * *corax* O. Sacken, Western Dipt. 314. — Sierra Nevada, Cal.
- metatarsalis* Thomson, Eugenes Resa 512. — California.
- * *pollex* O. Sacken. Western Dipt. 314. — Sierra Nevada, Cal.

[The following species of *Dolichopus*, published by previous authors have not been identified by Mr. Loew, and most of them never will be, on account of their incomplete descriptions. These descriptions are reproduced in the Appendix to Monogr. Vol. II, page 289-320. A critical examination, by Mr. Loew, of these species is given in the same volume page 20-24.]

- abdominalis* Say, J. Acad. Phil. VI, 170; Compl. Wr. II, 362. — Indiana.
- adjacens* Walker, List, etc. III, 661. — Huds. B.
- affinis* Walker, List, etc. III, 659. — Nova Scotia.
- bifrons* Walker, Dipt. Saund. III, 212 [perhaps *Pelastoneurus* Lw. l. c.]. — United States.
- elliptus* Walker, List, etc. III, 661. — Huds. B.
- coercens* Walker, List, etc. III, 661. — New York.
- confinis* Walker, l. c. 664. — Huds. B.
- consors* Walker, Dipt. Saund. III, 213. — United States.
- conterminus* Walker, List, etc. III, 664. — New York.
- contingens* Walker, Dipt. Saund. III, 213. — United States.
- contiguus* Walker, List, etc. III, 663. — New York.
- discessus* Walker, List, etc. III, 662. — Massachusetts.
- distractus* Walker, l. c. III, 662. — New York.
- exclusus* Walker, l. c. III, 663. — Huds. B. Terr.
- finitus* Walker, l. c. III, 662. — New York.
- hebes* Walker, Dipt. Saund. III, 213. — United States.
- heteroneurus* Macquart, Dipt. Exot. 4e Suppl. 128, 5; Tab. XII, f. 10. [*Pelastoneurus* or *Paraclius*? — Lw. l. c.]. — North America.
- ineptus* Walker, Dipt. Saund. III, 214. — United States.
- irrasus* Walker, List, etc. III, 767. — Florida.
- lamellipes* Walker, List, etc. III, 660. — Huds. B. Terr.
- maculipes* Walker, Dipt. Saund. III, 214 [perhaps *Pelastoneurus* — Lw. l. c.]. — United States.
- obscurus* Say, J. Acad. Phil. III, 85, 4; Wiedemann, Auss. Zw. II, 232. 6. [evidently a *Gymnopternus* — Lw. l. c.]. — Pennsylvania.
- pulcher* Walker, Dipt. Saund. III, 215 [perhaps *Gymnopternus* — Lw. l. c.]. — United States.
- remotus* Walker, List, etc. III, 666. — North America.
- separatus* Walker, l. c. 665. — Huds. B. Terr.
- sequax* Walker, l. c. III, 666. — Huds. B. Terr.
- soccatus* Walker, List, etc. III, 666. — Huds. B. Terr.
- terminatus* Walker, List, etc. III, 665. — North America.
- varius* Walker, Dipt. Saund. III, 215. — United States.

Gymnopternus.

Loew, Neue Beitr. V; 1857; Monogr. II, 75.

- **albiceps* Loew, Neue Beitr. VIII, 30, 7; Monogr. II, 85. — Middle States.
- **barbatulus* Loew, Neue Beitr. VIII, 29, 2; Monogr. II, 82. — Middle States.
- **chalcocerus* Loew, Monogr. II, 335. — New York; Distr. Columbia.
- **coxalis* Loew, Centur. V, 87; Monogr. II, 335. — New York.
- **crassicauda* Loew, Neue Beitr. V.II, 35, 20; Monogr. II, 96. — New York.
- **debilis* Loew, Neue Beitr. VIII, 35, 19; Monogr. II, 95. — Pennsylvania.
- **despicatus* Loew, Neue Beitr. VIII, 33, 13; Monogr. II, 90. — Middle States.
- **difficilis* Loew, Neue Beitr. VIII, 33, 14; Monogr. II, 91. — New York.
- **exiguus* Loew, Monogr. II, 337. — Illinois.
- **exilis* Loew, Neue Beitr. VI.I, 30, 5; Monogr. II, 84. — Pennsylvania.
- **fimbriatus* Loew, Neue Beitr. V.II, 32, 12; Monogr. II, 89. — Maryland.
- **flavus* Loew, Neue Beitr. VIII, 23, 1; Monogr. II, 80. — Pennsylvania.
- **frequens* Loew, Neue Beitr. VIII, 32, 10; Monogr. II, 88. — Middle States.
- **humilis* Loew, Monogr. II, 336. — New York; Illinois.
- **laevigatus* Loew, Neue Beitr. VIII, 31, 9; Monogr. II, 87. — Middle States.
- **lunifer* Loew, Neue Beitr. VIII, 32, 11; Monogr. II, 89. — New York.
- **meniscus* Loew, Centur. V, 88; Monogr. II, 336. — Distr. Columbia.
- **minutus* Loew, Neue Beitr. VIII, 35, 21; Monogr. II, 96. — Middle States.
- **nigribarbus* Loew, Neue Beitr. VIII, 33, 15; Monogr. II, 91. — Pennsylvania.
- **opacus* Loew, Neue Beitr. VIII, 34, 17; Monogr. II, 93. — New York.
- **parvicornis* Loew, Neue Beitr. VIII, 34, 16; Monogr. II, 92. — Middle States.
- **phyllophorus* Loew, Centur. VII, 82. — Lake George, N. Y.
- **politus* Loew, Neue Beitr. VIII, 34, 18; Monogr. II, 94 and 334. — New York.
- **pusillus* Loew, Monogr. II, 334. — Illinois.
- **scotias* Loew, Neue Beitr. VIII, 29, 3; Monogr. II, 81. — British North America (Lake Winnipeg).
- **spectabilis* Loew, Neue Beitr. VIII, 30, 5; Monogr. II, 85. — New York.
- **subdilatatus* Loew, Neue Beitr. VIII, 31, 8; Monogr. II, 86. — Middle States.
- **subulatus* Loew, Neue Beitr. VIII, 29, 2; Monogr. II, 80. — New York.
- **tristis* Loew, Monogr. II, 83. — Sitka.
- **ventralis* Loew, Neue Beitr. VIII, 36, 22; Monogr. II, 97. — New York; Distr. Columbia.

Observation. *Dol. obscurus* Say, is probably a *Gymnopternus*; compare Loew, Monogr. II, 20.

Paraclius.

Paraclius, Bigot, Ann. Soc. Ent. 1859, 215; amended in Loew, Monogr. II, 97; 1864.

albonotatus Loew, Monogr. II, 102. — New Orleans.

* *claviculatus* Loew, Centur. VII, 83. — New Rochelle, New York.

* *pumilio* Loew, Centur. X, 63. — Texas.

* *arcuatus* Loew, Neue Beitr. VIII, 39, 4; Monogr. II, 101. — Cuba.

Pelastoneurus.

Loew, Neue Beitr. VIII; 1861; Monogr. II, 103.

* *abbreviatus* Loew, Centur. V, 89; Monogr. II, 338. — New Rochelle, New York.

* *alternans* Loew, Centur. V, 91; Monogr. II, 339. — New Rochelle, New York.

* *cognatus* Loew, Monogr. II, 109. — Middle States; Texas.

* *fureifer* Loew, Centur. X, 64. — Texas.

* *laetus* Loew, Neue Beitr. VIII, 38, 3; Monogr. II, 106. — Georgia; Distr. Columbia.

* *lamellatus* Loew, Centur. V, 90; Monogr. II, 338. — New York.

* *longicauda* Loew, Neue Beitr. VIII, 37, 1; Monogr. II, 104. — New York.

* *lugubris* Loew, Neue Beitr. VIII, 38, 2; Monogr. II, 105. — Trenton Falls, New York.

* *vagans* Loew, Neue Beitr. VIII, 39, 5; Monogr. II, 108. — Middle States.

Polymedon.

O. Sacken, Western Dipt., 317; 1877.

* *flabellifer* O. Sacken, Western Dipt., 317. — Sonoma Co., California.

Tachytrechus.

Stannius, Isis 1831; Loew, Neue Beitr. V, 1857; Monogr. II, 109.

* *angustipennis* Loew, Centur. II, 64; Monogr. II, 113. — Distr. Columbia; also in California, see O. Sacken, Western Dipt., 315.

* *binodatus* Loew, Centur. VII, 84. — Saratoga, New York.

* *moechus* Loew, Neue Beitr. VIII, 40, 1; Monogr. II, 110. — Trenton Falls, New York.

* *vorax* Loew, Neue Beitr. VIII, 41, 2; Monogr. II, 112. — Distr. Columbia.

* *sanus* C. Sacken, Western Dipt., 316. — Sierra Nevada, California.

Observation. *Tachytrechus mocchus* and *sanus* belong to the new genus *Macellocerus* Mik; Schulprogr. d. Acad. Gymn. in Wien, 1878. —

About *Orthochile derempta* Walker, List, etc. see the note (187).

Hercostomus.

Loew, Neue Beitr. V, 1857; Monogr. II, 116. (1858).

**unicolor* Loew, Monogr. II, 117. — Fort Resolution, Huds. B. Terr.

Diostracus.

Loew, Neue Beitr. VIII; 1861; Monogr. II, 120.

**prasinus* Loew, Neue Beitr. VIII, 44, 1; Monogr. II, 121. — New York.

Argyra.

Macquart, Hist. Nat. Dipt. I, 456; 1834; Loew, Monogr. II, 123.

**albicans* Loew, Neue Beitr. VIII, 45, 1; Monogr. II, 125. — Distr. Columbia.

**albiventris* Loew, Monogr. II, 128 — Sitka

**calceata* Loew, Neue Beitr. VIII, 47, 4; Monogr. II, 131. — Middle States.

**calcitrans* Loew, Neue Beitr. VIII, 46, 3; Monogr. II, 130. — New York.

**cylindrica* Loew, Monogr. II, 132. — Sitka.

**minuta* Loew, Neue Beitr. VIII, 46, 2; Monogr. II, 129. — Distr. Columbia.

**nigripes* Loew, Monogr. II, 127. — Sitka.

Synarthrus.

Loew, Neue Beitr. V; 1857; Monogr. II, 134.

barbatus Loew, Neue Beitr. VIII, 48, 2; Monogr. II, 133. — Middle States.

**cinereiventris* Loew, Neue Beitr. VIII, 48, 1; Monogr. II, 137. — Middle States; Texas.

**palmaris* Loew, Monogr. II, 135. — Sitka.

Rhaphium.

Meigen, Illiger's Magaz. II; 1803;

Loew, Neue Beitr. V; Monogr. II, 140.

**lugubre* Loew, Neue Beitr. VIII, 49, 1; Monogr. II, 141. — Carolina.

Porphyrops.

Meigen, System. Besch. IV, 45; 1824; Monogr. II, 142.

**fumipennis* Loew, Neue Beitr. VIII, 51, 3; Monogr. II, 146. — Middle States.

**longipes* Loew, Centur. V, 92; Monogr. II, 340. — White Mts., N. H., Canada.

- **melampus* Loew, Neue Beitr. VIII, 50, 1; Monogr. II, 144. — Atlantic States.
 **nigricoxa* Loew, Neue Beitr. VIII, 51, 2; Monogr. II, 145. — Maryland.
pilosicornis Walker, List, etc. III, 653. — Huds. B. Terr.
 **rotundiceps* Loew, Neue Beitr. VIII, 51, 4; Monogr. II, 146. — Distr. Columbia.
 **signifer*, n. sp. see the note (186). — New York.

Leucostola.

Loew, Neue Beitr. V; 1857; Monogr. II, 151.

- **cingulata* Loew, Neue Beitr. VIII, 53, 1; Monogr. II, 152. — Distr. Columbia.
 (*Eutarsus eques*, Loew, Monogr. II, 154, is from Venezuela.)

Diaphorus.

Meigen, System. Besch. IV; 1824; Loew, Monogr. II, 156.

- **lamellatus* Loew, Monogr. II, 165. — Middle States.
 **leucostomus* Loew, Neue Beitr. VIII, 58, 5; Monogr. II, 166. — Distr. Columbia; Maryland.
 **mundus* Loew, Neue Beitr. VIII, 57, 2; Monogr. II, 161. — Pennsylvania.
 **opacus* Loew, Neue Beitr. VIII, 56, 1; Monogr. II, 160. — New York.
 **sodalis* Loew, Neue Beitr. VIII, 58, 4; Monogr. II, 163. — New York.
 **spectabilis* Loew, Neue Beitr. VIII, 57, 3; Monogr. II, 162. — Distr. Columbia.
 **subsejunctus* Loew, Centur. VI, 83. — Cuba.
 **interruptus* Loew, Wien. Ent. Monatschr. V, 37; Neue Beitr. VIII, 59; Monogr. II, 168. — Cuba.

Asyndetus.

Loew, Centur. VIII, 58; 1869; compare also Loew, Besch. Eur. Dipt. II, 296.

- **ammophilus* Loew, Centur. VIII, 58. — Newport, R. I.
 **appendiculatus* Loew, Centur. VIII, 59. — Newport, R. I.

Lyroncurus.

Loew, Wien. Ent. Monatschr. I, 37; 1857; Monogr. II, 169.

- **caerulescens* Loew, Wien. Ent. Mon. I, 39; Neue Beitr. VIII, 60, 1; Monogr. II, 170. — Mexico.

Chrysotus.

Meigen, System. Besch. IV, 1824; Loew, Monogr. II, 171. (180).

- **affinis* Loew, Neue Beitr. VIII, 64; Monogr. II, 178. — Middle States.
 **auratus* Loew, Neue Beitr. VIII, 65; Monogr. II, 183. — New York.

- * *cornutus* Loew, Monogr. II, 174. — Distr. Columbia.
- * *costalis* Loew, Neue Beitr. VIII, 64; Monogr. II, 179. — Florida; Maryland.
- * *discolor* Loew, Neue Beitr. VIII, 65; Monogr. II, 182. — Middle States.
- * *longimanus* Loew, Neue Beitr. VIII, 62; Monogr. II, 175. — Middle States.
- * *obliquus* Loew, Neue Beitr. VIII, 63; Monogr. II, 176. — New York. ⁽¹⁹¹⁾.
- * *pallipes* Loew, Neue Beitr. VIII, 66; Monogr. II, 183. — Middle States. ⁽¹¹⁹⁾.
- * *picticornis* Loew, Monogr. II, 184. — Distr. Columbia; Texas.
- * *subcostatus* Loew, Monogr. II, 181. — Illinois.
- * *validus* Loew, Neue Beitr. VIII, 63, 2; Monogr. II, 175. — Middle States.
- * *vividus* Loew, Monogr. II, 178. — Distr. Columbia.

The following species, described by previous authors as *Chrysotus*, either do not belong to this genus, or can not be recognized, on account of the insufficiency of the descriptions. Mr Loew discusses them in Monogr. II, 172, and the descriptions are reproduced in the Appendix to the same volume.

- abdominalis* Say, J. Acad. Phil. VI, 169, 3; Compl. Wr. II, 362. — Indiana.
- concinarius* Say, J. Acad. Phil. VI, 168; 2; Compl. Wr. II, 361. — Mexico.
- incertus* Walker, List, etc. III, 651. — United States.
- nubilis* Say, J. Acad. Phil. VI, 168, 1; Compl. Wr. II, 361. — Indiana.
- viridifemora* Macquart, Dipt. Exot. 4^e Suppl. 124, 2; Tab. XII, f. 3. — North America.

Sympycenus.

- Loew, Neue Beitr. V, 1857; Monogr. II, 185. ⁽¹⁹²⁾.
- * *frontalis* Loew, Neue Beitr. VIII, 67; Monogr. II, 188. — Pennsylvania.
- * *lineatus* Loew, Neue Beitr. VIII, 67; Monogr. II, 189. — Virginia; New York.
- * *nodatus* Loew, Centur. II, 68; Monogr. II, 191. — Illinois.
- * *tertianus* Loew, Monogr. II, 187. — Sitka.

Campsicnemus.

- Haliday, in Walker's Ins. Brit. Dipt. I, 187; 1851; Loew, Monogr. II, 193.
- * *claudicans* Loew, Monogr. II, 194. — Sitka.
- * *hirtipes* Loew, Neue Beitr. VIII, 68; Monogr. II, 193. — Pennsylvania; New York.

Plagioneurus.

- Loew, Wien. Ent. Monatschr. I, 43; 1857; Monogr. II, 196.
- * *univittatus* Loew, Wien. Ent. Mon. I, 43; Neue Beitr. VIII, 69; Monogr. II, 196. — Cuba; Brazil.

Liancalus.

Loew, Neue Beitr. V, 1857; Monogr. II, 198.

***genualis** Loew, Neue Beitr. VIII, 70; Monogr. II, 199. — Middle States.

***querulus** O. Sacken, Western Dipt., 318. — Sonoma Co., California.

Scellus.

Loew, Neue Beitr. V, 1857; Monogr. II, 200.

***avidus** Loew, Monogr. II, 207. — Fort Resolution, Huds. B. Terr.

***exustus** Walker, Dipt. Saund. 211 (*Medeterus*); Loew, Neue Beitr. VIII, 71; Monogr. II, 203. — Middle States; Illinois.

***flifer** Loew, Monogr. II, 209. — Fort Resolution; Huds. B. Terr.

***spinimanus** Zetterstedt, Dipt. Scand. II, 445 (*Hydrophorus*); Loew, Monogr. II, 205. — Fort Resolution, Huds. B. Terr.

Hydrophorus notatus Zetterstedt, Ins. Lapp. 701 [Lw.].

***monstrosus** O. Sacken, Western Dipt., 319. — British Columbia.

***vigil** O. Sacken, Western Dipt., 318. — Sierra Nevada, California.

Hydrophorus.

Fallen, Dolichopod. 1825; Wahlberg, Oefv. of k. vet. akad. forh. 1844; Loew, Monogr. II, 211.

***aestuum** Loew, Centur. VIII, 60. — Newport, R. I.

***cerutias** Loew, Centur. X, 65. — Texas.

***innotatus** Loew, Monogr. II, 212. — Sitka.

***parvus** Loew, Centur. II, 67; Monogr. II, 216. — Pennsylvania.

***pirata** Loew, Neue Beitr. VIII, 71, 1; Monogr. II, 214. — Pennsylvania.

***viridiflos** Walker, Dipt. Saund., 212. — North America. (I refer to this species so specimens from Massachusetts.)

Observation. The following species, described as *Medeterus*, belong, in part at least, to *Hydrophorus*; those of Mr. Walker's are discussed by Mr. Loew in Monogr. II, 215. Mr. Say's two species I do not find mentioned in Mr. Loew's Monogr. The description of all these species are reproduced in the Appendix to Monogr., Vol. II.

albiflorens Walker, List, etc. III, 656. — Nova Scotia.

chrysologus Walker, List, etc. III, 655. — Huds. B. Terr.

exustus Walker, Dipt. Saund., 211. — North America.

glaber Walker, List, etc. III, 655. — Huds. B. Terr.

lateralis Say, J. Acad. Phil. VI, 169, 1; Compl. Wr. II, 362. — Indiana.

punctipennis Say, J. Acad. Phil. VI, 170, 2; Compl. Wr. II, 362. — Mexico.

Medeterus.

Medetera Fischer, Notice sur une mouche carnivore, 1819; Loew, Monogr. II, 218 (¹⁹⁰).

**nigrines* Loew, Neue Beitr. VIII, 73; Monogr. II, 218. — Middle States.

**veles* Loew, Neue Beitr. VIII, 73; Monogr. II, 219. — Florida.

breviseta Thomson, Eugen. Resa, etc. 510. — California (this species in probably a *Hydrophorus*).

Chrysotimus.

Loew, Neue Beitr. V, 1857; Monogr. II, 20.

**delicatus* Loew, Neue Beitr. VIII, 74; Monogr. II, 222. — New York.

**pusio* Loew, Neue Beitr. VIII, 74; Monogr. II, 221. — New York.

Xanthochlorus.

Loew, Neue Beitr. V, 1857; Monogr. II, 223.

**helvinus* Loew, Neue Beitr. VIII, 75; Monogr. II, 224. — Chicago.

Saucropus.

Loew, Neue Beitr. V, 1857; Monogr. II, 224.

**carbonifer* Loew, Centur. IX, 84. — New York. (I found it at Lloyd's Neck, Long Island; also in the Central Park N. York. — O. S. .

**dimidiatus* Loew, Neue Beitr. VIII, 75; Monogr. II, 225. — Florida; Distr. Columbia.

**rubellus* Loew, Neue Beitr. VIII, 76; Monogr. II, 226. — Berkeley Springs, Virginia.

**superbiens* Loew, Neue Beitr. VIII, 76; Monogr. II, 227. — Florida; Distr. Columbia; New York.

**tenuis* Loew, Monogr. II, 228. — Middle States.

Psilopus.

Meigen, System. Besch. VI, 1824; Loew, Monogr. II, 229.

**bicolor* Loew, Neue Beitr. VIII, 96; Monogr. II, 280. — Middle States.

**calcaratus* Loew, Neue Beitr. VIII, 93; Monogr. II, 272. — Carolina.

**caudatulus* Loew, Neue Beitr. VIII, 93; Monogr. II, 271. — Missouri; Illinois.

**ciliatus* Loew, Neue Beitr. VIII, 88; Monogr. II, 260. — Florida.

(?) *Psilopus mundus* Wiedemann, Auss. Zw. II, 227.

**comatus* Loew, Neue Beitr. VIII, 89; Monogr. II, 262; — Middle States.

**filipes* Loew, Neue Beitr. VIII, 99; Monogr. II, 286. — Middle States (South America, in Schiner, Novara, 213).

- * *inermis* Loew, Neue Beitr. VIII, 93; Monogr. II, 272. — Pennsylvania.
- * *pallens* Wiedemann, Auss. Zw. II, 219; Loew, Neue Beitr. VIII, 97; Monogr. II, 275. — New York; Newport, R. I.; Sag Harbour, L. I. (193).
- Psilopus albonotatus*, Loew, Neue Beitr. V, 4. — Island Rhodus; Asia minor [Loew].
- * *patibulatus* Say, J. Acad. Phil. III, 87 and VI, 168; Compl. Wr. II, 76 and 361 (*Dolichopus*); Wiedemann, Auss. Zw. II, 225; Loew, Neue Beitr. VIII, 85; Monogr. II, 251. — Atlantic States.
- Psilopus amatus* Walker, List, etc. III, 648 [Loew].
- Psilopus inficitus* Walker, List, etc. III, 649 [Loew].
- * *psittacinus* Loew, Neue Beitr. VIII, 96; Monogr. II, 281. — Florida.
- * *scaber* Loew, Neue Beitr. VIII, 85; Monogr. II, 250. — Pennsylvania.
- * *scobinator* Loew, Neue Beitr. VIII, 91; Monogr. II, 268. — New York; Illinois.
- * *scintillans* Loew, Neue Beitr. VIII, 94; Monogr. II, 273. — Middle States.
- * *sipho* Say, J. Acad. Phil. III, 84; Compl. Wr. II, 75 (*Dolichopus*); Wiedemann, Auss. Zw. II, 218; Loew, Neue Beitr. VIII, 83; Monogr. II, 248. — Atlantic States.
- Psilopus gemmifer* Walker, List, etc. III, 646 [Loew].
- * *tener* Loew, Centur. II, 71; Monogr. II, 284. — Pennsylvania.
- ungulivena* Walker, Trans. Ent. Soc. N. S. IV, 149. — United States.
- * *variegatus* Loew, N. Beitr. VIII, 95; Mon. II, 278. — Florida; Cuba.
- caustus* Loew, Centur. VI, 84. — Cuba.
- * *chrysoprasius* Loew, Neue Beitr. VIII, 90; Monogr. II, 266. — Cuba; (Brazil, Schiner, Novara, 213).
- Psilopus chrysoprasi* Walker, List, etc. III, 646. [Lw.].
- dimidatus* Loew, Centur. II, 70; Monogr. II, 246. — Mexico; (South America, Schiner, Novara, 212).
- * *dorsalis* Loew, Centur. VI, 85. — Cuba.
- * *jucundus* Loew, Neue Beitr. VIII, 87; Monogr. II, 258. — Cuba.
- Psilopus sipho* Macquart, Dipt. Exot. II, 2, 119; Tab. 21, f. 1 [Loew].
- * *melampus* Loew, Centur. II, 69; Monogr. II, 253. — Mexico (South America, Schiner, Novara, 212).
- * *pilosus* Loew, Neue Beitr. VIII, 86; Monogr. II, 256. — Cuba.

The following species were not identified by Mr. Loew in preparing his work; they are discussed in Monogr. etc. II, pag. 231–243; the original descriptions are reproduced in the Appendix to the same volume:

- albiceoxa* Walker, List, etc. III, 651. — Ohio; Massachusetts, Nova Scotia.
- caudatus* Wiedemann, Auss. Zw. II, 224, 23. — Georgia.
- delicatus* Walker, List, etc. III, 645. — New York.
- femoratus* Say, J. Acad. Phil. III, 86, 5 (*Dolichopus*) and VI, 168, 11; Compl. Wr. II, 76 and 361; Wiedemann, Auss. Zw. II, 226, 28. — Pennsylvania.
- nigrifemoratus* Walker, List, etc. III, 650. — Nova Scotia.

- Sayi** Wiedemann, Auss. Zw. II, 219, 13; Say, J. Acad. Phil. III, 85, 2 (*Dolichopus unifasciatus*). — Pennsylvania.
- virgo** Wiedemann, Auss. Zw. II, 224, 24. — New York.
- haereticus** Walker, Trans. Ent. Soc. N. Ser. V, 286. — Mexico.
- incisuralis** Macquart, Dipt. Exot. Suppl. I, 120, 21; Tab. XX, f. 6. — Yucatan.
- lepidus** Walker, Dipt. Saund. 207. — Mexico.
- longicornis** Fabricius, System. Ent. 783, 52; Ent. System. IV, 341, 124 (*Musca*); System. Antl. 269, 14 (*Dolichopus*); Wiedemann, Auss. Zw. II, 220, 14. — West Indies.
- (?) *Psilopus radians* Macquart, Hist. Nat. Dipt. I, 450, 6; Dipt. Exot. II, 2, 121, 18. — Amer. Sept. [Loew, Monogr. II, 240].
- macula** Wiedemann, Auss. Zw. II, 219, 12. — West Indies.
- portoricensis** Macquart, Hist. Nat. Dipt. I, 450, 7; Dipt. Exot. II, 2, 121, 17 and 1er Suppl. 120; Tab. XI, f. 7 (*wing*). — Porto Rico; also in Columbia, South Amer.
- peractus** Walker, Trans. Ent. Soc. N. Ser. V, 286. — Mexico.
- permodicus** Walker, Trans. Ent. Soc. N. Ser. V, 287. — Mexico.
- solidus** Walker, Trans. Ent. Soc. N. Ser. V, 286. — Mexico.
- suavium** Walker, List, etc. III, 648. — Jamaica.

Observation. *Psilopus diffusus* Wiedemann and *P. guttula* Wiedemann, of my former Catalogue, are stated by Mr. Loew to be Brazilian species, and not North American; in Monogr. Vol. II, 235 and 237 he gives full descriptions of them.

FAMILY LONCHOPTERIDAE.

Lonchoptera.

Meigen, in Illiger's Magaz. II, 1803.

- ***lutea** Panzer, Meigen, System. Besch. IV, 107. — Europe and North America.
- ***riparia** Meigen, System. Besch. IV, 108. — Europe and North America.
[The american specimens of these species do not show any apparent difference from European ones.]

II. DIPTERA CYCLORHAPHA.

FAMILY SYRPHIDAE.

Mixogaster.

Macquart, Dipt. Exot. II, 2, 14, 1842.

mexicanus Macquart, Dipt. Exot. 1^{er} Suppl. 123; Tab. X, fig. 15. — Mexico.

Microdon.

Meigen, Illiger's Magaz. II, 1803; *Aphritis* Latreille, 1804. (1st).

***aurulentus** Fabricius, System. Antl. 185, 8 (*Milio*); Wiedemann, Auss. Zw. II, 86, 10; Macquart, Dipt. Exot. II, 2, 12, 4; Tab. II, f. 1 (*Aphritis*). — Carolina (M. C. Z. has a specimen from Illinois, which may belong here).

***baliopterus** Loew, Centur. X, 56. — Texas.

***coaretatus** Loew, Centur. V, 47. — Distr. Columbia.

***fulgens** Wiedemann, Auss. Zw. II, 82, 1; Macquart, Dipt. Exot. 1^{er} Suppl. 122 (*Aphritis*). — Georgia (Wied.); Florida; Guyana (Macq.). *Microdon euglossoides* Gray, in Griffith's Animal Kingdom; Ins. II; Tab. 125, f. 2 [Walker, List, etc. III, p. 538.]

***fuscipennis** Macquart, Hist. Nat. Dipt. I, 488, 3 (*Ceratophyia*). — Philadelphia (Macq.); Texas. (1⁹⁵).

Microdon Agapenor Walker, List, etc. III, 539. — Georgia. [Walker, List, etc. IV, 1157, where a new generic name, *Mesophila*, is proposed.]

***globosus** Fabricius, System. Antl. 185, 9 (*Milio*); Wiedemann, Auss. Zw. II, 86, 11; Macquart, Dipt. Exot. II, 2, 12, 5; Tab. I, f. 4 (*Aphritis*). — Carolina (Fab.); Atlantic States.

Dimeraspis podagra Newman, Ent. Mag. V, 373. [Walker, List, etc., III, p. 540.]

rufipes Macquart, Dipt. Exot. II, 2, 11; Tab. II, f. 3 (*Aphritis*). — Philadelphia.

***tristis** Loew, Centur. V, 45. — Virginia (Lw.); New York and northward, as far as Mackenzie River.

***inaequalis** Loew, Centur. VII, 70. — Cuba.

***laetus** Loew, Centur. V, 46. — Cuba.

***trochilus** Walker, Dipt. Saund. 216. — Mexico (this may be the same as *M. aurifer* Wied. II, 85, from Brazil).

Observation. For *Chymophila splendens* Macquart, Hist. Nat. Dipt. I, 486 etc., see the note (1⁹⁶).

Chrysotoxum.

Illiger's Magaz. II, 1803. (197).

- **derivatum* Walker, List, etc. III, 542. — Huds. B. Terr.; Yukon River, Alaska; Colorado Mts.
- flavifrons* Macquart, Dipt. Exot. II, 2, 17, 2; Tab. III, f. 2. — Newfoundland.
- **laterale* Loew, Centur. V, 42. — Nebraska.
- **pubescens* Loew, Wiener Ent. Monatschr. IV, 83, 10; Centur. V, 43. — Distr. Columbia.
- **ventricosum* Loew, Centur. V, 44. — Distr. Columbia.

nigrita Fabricius, Ent. System. IV, 292, 49 (*Syrphus*); System. Antl. 183, 1 (*Mulio*); Wiedemann, Auss. Zw. II, 88, 2. — Jamaica.

Paragus.

Latreille, Hist. Nat. Crust. et Ins. XIV, 358; 1804.

- **angustifrons* Loew, Centur. IV, 64. — Virginia.
- **bicolor* Fabricius, Meigen, etc. — Europe and North America.
- **dimidiatus* Loew, Centur. IV, 63. — Distr. Columbia.

Observation. *Paragus transatlanticus* Walker, List, etc. III, 544, Trenton Falls, is represented in the Brit. Mus. by two specimens, both types; only one of them is a *Paragus*.

For *Paragus aeneus* Walker, see *Orthoneura*. (198).

Pipiza.

Fallén, Dipt. Suec. Syrphi, 58; 1816.

- buccata* Macquart, Dipt. Exot. II, 2, 107; Tab. XVIII, f. 2. — Carolina.
- **calcarata* Loew, Centur. VI, 42. — New York.
- **femoralis* Loew, Centur. VI, 38. — Illinois.
- **festiva* Meigen (or a species closely allied to it). — Canada.
- **fraudulenta* Loew, Centur. VI, 41. — Illinois.
- **nigribarba* Loew, Centur. VI, 40. — New York.
- radicum* Riley, 1st Rep. p. 121, f. 66; Amer. Ent. I, p. 83. — Illinois (apparently the same as *femoralis* Loew).
- **salax* Loew, Centur. VI, 39. — Pennsylvania.

divisa Walker, Trans. Ent. Soc. N. Ser. IV, 156. — Vera Cruz.

Psilota.

Meigen, System. Besch. III, 256; 1822.

flavidipennis Macquart, Dipt. Exot. 5^e Suppl. 97; Tab. V, f. 5 (compare the remark in Loew, Monogr. I, 27). — Philadelphia.

Triglyphus.

Loew, Oken's Isis. 1840, 512.

- **modestus* Loew, Centur. IV, 62. — New York.
- **pubescens* Loew, Centur. IV, 61. — Wisconsin.

Chrysogaster.

Meigen, Illiger's Magaz. II, 1803. (¹⁹⁹).

- **latus* Loew, Centur. IV, 59. — British North America (English River).
- **nigripes* Loew, Centur. IV, 60. — New York.

Observation. *Chrysogaster Apisaon* Walker, List III, 572. — New York.
 " *Antitheus* l. c. 572. — New York.
 " *vicidens* Walker, Dipt. Saund., 228. — United States. Mr. Walker's types in the Brit. Mus. are single specimens, in very poor condition. Upon comparison, they will probably prove identical with Mr. Loew's species of *Chrysogaster* and *Orthoncura*.

Orthoncura.

Macquart, Hist. Nat. Dipt. I, 563; 1834.

- **nitida* Wiedemann, Auss. Zw. II, 116, 1 (*Chrysogaster*). — North America.
Cryptincura hieroglyphica Bigot, Rev. et Magaz. de Zool. 1859.
- **pictipennis* Loew, Centur. IV, 58. — New York.
- **ustulata* Loew, Centur. IX, 80. — Orange, N. J.

- **nigrovittata* Loew, Zeitschr. für Ges. Naturw. December 1876, p. 323. — San Francisco.

Observation. *Paragus aeneus* Walker, List, etc. III, 545, Ohio, is an *Orthoncura*. (¹⁹⁸).

Chilosia.

Cheilosia Meigen, System. Besch. III, p. 296; 1822. (²⁰⁰).

- **capillata* Loew, Centur. IV, 65. — Distr. Columbia.
- **comosa* Loew, Centur. IV, 66. — British America.
- **cyanescens* Loew, Centur. IV, 67. — Illinois.
- **leucoparea* Loew, Centur. IV, 69. — Carolina.
- **pallipes* Loew, Centur. IV, 70. — Distr. Columbia, White Mts., N. H.; California.
- **plumata* Loew, Centur. IV, 68. — Virginia.
- **tristis* Loew, Centur. IV, 71. — Red River of the North.

Observation. *Syrphus Acsytes* Walker, List, etc. III, 591, Huds. B. Terr.
Syrphus latrans l. c. 575, Huds. B. Terr. are both *Chilosia*.

Melanostoma.

Schiner, Wiener Ent. Monatschr. IV, 213; 1860.

- ambigua* (Fallen? Zetterstedt, Ins. Lapp. 608, 38(?) (*Syrphus*); Dipt. Scand. II, 757, 60 (*id.*); variety in Staeger, Groenl. Anth. p. 361, 29 (?). [The quotations and queries are Schioedte's, in the Berl. Ent. Zeitschr. 1859, p. 153.] — Greenland.
- **scalaris* Fabricius, Panzer, etc. (*Syrphus*). — Europe and North America (common).
Syrphus mellinus (Linné), Fabricius, Meigen, etc. See description in Schiner, Fauna Austr. Dipt. I, 291.
- **obscura* Say, Amer. Ent. I; Tab. XI (*Syrphus*), Compl. Wr. I, 23; Wiedemann, Auss. Zw. II, 131 (*id.*). — Atlantic States.

trichopus Thomson, Eugen. Resa, 502 (*Syrphus*). — California.

* *tigrina* O. Sacken, Western Dipt., 323. — California.

Observation. *M. gracilis* Meig. and *M. maculosus* Meig., both European, are stated to occur in N. America by Mr. Walker, List, etc., III, 588 — 589. Mr. Verrall informs me that those two species are synonyms of *M. scalaris* Fab. But Mr. Walker's *Syrphus maculosus* has two representatives in the British Museum, both *Platycheirus*, one resembling *P. immarginatus* Zett., the other resembling *P. scambus* Staeger."

Platycheirus.

Platycheirus St. Fargeau et Serv. Encycl. Méth. T. X, 513; 1825.

* *hyperboreus* Staeger, Groenl. Antl. 362, 30 (*Syrphus*); Holmgren, Ins. Nordgroenl. p. 100 (*Scavea*). — Greenland (Staeger, Holmgren, Pennsylvania, Virginia, etc. (M. C. Z.).

Naso Walker, List, etc. III, 587 (*Syrphus*). — Huds. B. Terr.

Pacilus Walker, Dipt. Saund. 240 (*Syrphus*). Compl. Wr. II, 79. (2nd).

* *quadratus* Say, J. Acad. Phil. III, 90, 4 (*Scavea*); Wiedemann, Auss. Zw. II, 135, 32 (*Syrphus*). — Atlantic States.

Syrphus fuscipennis Macquart, Dipt. Exot. 5^e Suppl. 95, 58.

* *peltatus* Meigen, System. Besch. III, 334 (*Syrphus*). — Europe; North America (Sitka, according to Loew; Western New York, in M. C. Z.).

Pyrophaena.

Schiner, Wiener Ent. Monatschr. IV, p. 213; 1860.

* *oeymi* Fabricius, Panzer, Meigen, System. Besch. III, 337 (*Syrphus*). — Europe; North America (Massachusetts, White Mts., N. H., Quebec; Athabasca Lake, etc.).

* *rosarum* Fabricius etc., Meigen, System. Besch. III, 338 (*Syrphus*). — Europe; North America (Massachusetts; White Mts., N. H.).

Leucozona.

Schiner, Wiener Ent. Monatschr. IV, 214; 1860. (2nd).

* *lucorum* Linné, etc., Meigen, System. Besch. III, 313; Tab. 30, f. 27 (*Syrphus*); Curtis, Brit. Ent. 753 (*id.*). — Europe; North America (British Possessions, Quebec).

Catabomba.

O. Sacken, Western Dipt. 325; 1877. (2nd).

* *pyrastris* Linné, Meigen, etc. (*Syrphus*); O. Sacken, Western Dipt., 325. — Europe; California, Utah, Colorado; also in Chile (according to Macquart).

Syrphus transfugus Fabricius, Ent. System. IV, 306, 104.

Syrphus affinis Say, J. Acad. Phil. III, 93, 9; Compl. Wr. II, 81; Wiedemann, Auss. Zw. II, 117, 2. — Arkansas.

Eupeodes.

O. Sacken, Western Dipt., 323; 1877.

* *volucris* O. Sacken, Western Dipt., 329. — California, Utah, Colorado.

Syrphus.Fabricius, System. Ent. 1775. (²⁶⁴).

- ***abbreviatus** (Zetterstedt), Schiner, Fauna Austr. I, 311; O. Sacken, Proc. Bost. Soc. N. H. 1875, 144. — Europe and North America (Massachusetts).
- alcidice** Walker, List, etc. III, p. 579. — Huds. B. Terr. (²⁶⁵).
- ***amalopis** O. Sacken, Proc. Bost. Soc. N. H. 1875, 148. — White Mts., N. H.
- ***americanus** Wiedemann, Auss. Zw. II, 129; O. Sacken, Proc. Bost. Soc. N. H. 1875, 145. — Atlantic States (Massachusetts; Michigan; Texas); British Possessions; the same or a similar species in California, see O. Sacken, Western Dipt., 327.
- ***contumax** O. Sacken, Proc. Bost. Soc. N. H. 1875, 147. — White Mts., N. H.
(?) *Syrphus adolescens* Walker, List, etc. III, 584. — Huds. B. Terr.; Nova Scotia. (²¹¹).
- ***diversipes** Macquart, Dipt. Exot. 4^e Suppl. 155, 54; O. Sacken, Proc. Bost. Soc. N. H. 1875, 149. — White Mts., N. H. (common); Catskill Mt. House, N. Y.; Lake Superior; Newfoundland (Macq.).
(?) *Syrphus cincellus* Zetterstedt, Schiner, etc. — Europe.
- dimidiatus** Macquart, Hist. Nat. Dipt. I, 537, 10. — Georgia.
- ***geniculatus** Macquart, Dipt. Exot. II, 2, 101, 24; Tab. XVII, f. 5; O. Sacken, Proc. Bost. Soc. N. H. 1875, 159. — Newfoundland (Macq.); White Mts., N. H. (²⁶⁶).
- ***lapponicus** Zetterstedt, Dipt. Scand. II, 701, 3; Staeger, Groenl. Antl. 360, 28. — Europe and North America (Greenland; White Mts., N. H.); a similar species in California, see in O. Sacken, Western Dipt., 326. (²⁰⁷).
Syrphus Agnon Walker, List, etc. III, 579. — Nova Scotia; Huds. B. Terr.
- Syrphus arcucinctus* Walker, List, etc. III, 580. — Huds. B. Terr. (²⁶⁸).
- ***Lesueurii** Macquart, Dipt. Exot. II, 2, 92, 10; Tab. XVI, f. 3 (♀); O. Sacken, Proc. Bost. Soc. N. H. 1875, 143. — Northern and Middle States (probably also in Europe).
Epistrophe conjungens Walker, Dipt. Saunders, 242; Tab. VI, f. 5 (♂).
- ***ribesii** Linné, etc. — Europe and North America.
Syrphus rectus O. Sacken, Proc. Bost. Soc. N. H. 1875, 140.
(?) *Syrphus philadelphicus* Macquart, Dipt. Exot. II, 2, 93, 11; Tab. XVI, f. 2. (²⁰⁹).
- tarsatus** Zetterstedt, Ins. Lapp. 601, 2; Dipt. Scand. II, 730, 33; Staeger, Groenl. Antl. 360, 27. — Europe and Greenland.
- ***torvus** O. Sacken, Proc. Bost. Soc. N. H. 1875, 139. — Atlantic States.
Syrphus topiarius Zetterstedt (non Meigen); Staeger Groenl. Antl. 360, 26. — Europe and Greenland.
(?) *Scaeva concava* Say, J. Acad. Phil. III, 89, 3; Compl. Wr. II, 78; Wiedemann, Auss. Zw. II, 130 (*Syrphus*). (²⁰⁹).
- ***umbellatarum** O. Sacken, Proc. Bost. Soc. N. H. 1875, 151. — White Mts., N. H.

- (?) *Syrphus umbellatarum* Schiner, Fauna Austr. I, p. 307. — Europe.
 (?) *Syrphus guttatus* in Walker's List, etc. III, p. 536. — Huds. B. Terr. (²¹⁰).
Syrphus sexquadratus Walker, List, etc. III, 586. — Huds. B. Terr.; Nova Scotia.
fumipennis Thomson, Eugen. Resa, 499. — California.
 * *intrudens* O. Sacken, Western Dipt., 326. — Coast Range, California.
 * *opinator* O. Sacken, Western Dipt., 327. — Marin Co., California.
 * *protritus* O. Sacken, Western Dipt., 328. — Marin Co., California.
Antipathes Walker, List, etc. III, 589. — Jamaica.
colludens Walker, Trans. Ent. Soc. N. Ser. V, 292. — Mexico.
delineatus Macquart, Dipt. Exot. 1^{er} Suppl. 139, 37; Tab. XI, f. 13. — Mexico; (perhaps an *Allograpta*?)
 * *jactator* Loew, Wiener Ent. Mon. V, 40; Centur. VI, 46. — Cuba.
limbatus Fabricius, Syst. Antl. 251, 10 (*Scæva*); Wiedemann, Auss. Zw. II, 133, 30. — West Indies.
mutuus Say, J. Acad. Phil. VI, 164, 2; Compl. Wr. II, 358. — Mexico.
 * *nigripes* Loew, Centur. VI, 44. — Cuba.
 * *præustus* Loew, Centur. VI, 45. — Cuba.
quadrifasciatus Bigot, in R. de la Sagra, etc., 804; Tab. 20, f. 5. — Cuba.
radiatus Bigot, in R. de la Sagra, etc., 804. — Cuba.
 * *simplex* Loew, Wien. Ent. Mon. V, 40; Centur. VI, 43. — Cuba.
stegnus Say, J. Acad. Phil. VI. 163, 1; Compl. Wr. II, 358. — Mexico.

Observation. *Scæva dryadis* Holmgren, Ins. Spetsb. 26. — Spitzbergen and Greenland (Holmgr. Ins. Nordgroenl. 100). Not having seen the description of this species, I cannot tell whether it is a true *Syrphus*, a *Platycheirus*, or a *Melanostoma*.

Scæva arcuata Fallén, which Holmgren, Ins. Nordgroenl. has from Greenland, belongs to what I call the group of *Syrphus Lapponicus*; for this reason I have not quoted it in the above list.

Syrphus scæmaculatus Palisot-Beauvois, Ins. 224, Dipt. Tab. III, f. 8. — Southern States, San Domingo. This species evidently belongs to some other genus than *Syrphus*. The author compares it to *Syrphus tympanitis* Fabr. and says that it may be a mere variety, or the other sex of that species. *Syrphus tympanitis* Fabr. Syst. Antl. 226, 10. is, I think, a *Fulvicella*.

For *Syrphus Acsygetes* and *latrans* Wk., see *Chilosia*.

" " *ocstriiformis* Wk., see *Eristalis*.

" " *Naso* and *Pacilus* Wk., see *Platycheirus*.

" " *Corbis*, *coalescens*, *Gurges*, *Quintius*, *interrogans*, Wk., see *Mesograpta*.

" " *dimensus* Wk., see *Allograpta*.

" " *profusus* Wk., see *Milesia*.

" " *lucticus* Jaenicke, see *Mesograpta polita*.

Didea.

Macquart, Hist. Nat. Dipt. I, p. 508, 1834; *Enica*, Meigen, 1838.

- * *fuscipes* Loew, Centur. IV, 82. — Pennsylvania. (²¹²).

- **laxa* O. Sacken, *Bullet. Buff. Soc. Nat. Hist.* III, 66; reproduced in the note ⁽²¹²⁾. — White Mts., N. H., Lake Superior.

Mesograpta.

- Loew, *Centur.* Vol. II, p. 210; *Mesogramma* Loew, *Centur.* VI, 47; 1865.
 **Boscii* Macquart, *Dipt. Exot.* II, 100, 23; Tab. XVII, f. 2 (*Syrphus*). — Carolina (Macq.); Alabama, Florida.
Syrphus Gurgis Walker, *Dipt. Saund.*, 236. — United States.
 **geminata* Say, *J. Acad. Phil.* III, 92, 7; *Compl. Wr.* II, 80; Wiedemann, *Auss. Zw.* II, 145, 50 (*Syrphus*). — Atlantic States; California.
Syrphus interrogans Walker, *Dipt. Saund.*, 238. — North America.
Eumerus pricernus Walker, *Dipt. Saund.*, 225.
Toxomerus notatus Macquart, *Dipt. Exot.* 5^e Suppl., 93.
 **marginata* Say, *J. Acad. Phil.* III, 92, 6; *Compl. Wr.* II, 80 (*Scacra*); Wiedemann, *Auss. Zw.* II, 146, 52 (*Syrphus*). — Atlantic States and California.
 **polita* Say, *J. Acad. Phil.* III, 88, 1; *Compl. Wr.* II, 77 (*Scacra*); *id.* American Ent. I. Tab. XI (*Syrphus*); *Compl. Wr.* I, 24; Wiedemann, *Auss. Zw.* II, 132, 28 (*id.*). — Atlantic States; Cuba.
Syrphus cingulatus Macquart, *Dipt. Exot.* 4^e Suppl. 155, 53 (!).
Syrphus hecticus Jaennicke, *Neue Exot. Dipt.* 90. — Illinois.
 **parvula* Loew, *Centur.* VI, 47. — Florida.
 **planiventris* Loew, *Centur.* VI, 49. — Florida.
Syrphus Quintius Walker, *Dipt. Saund.*, 239. — United States.
limbiventris Thomson, *Eugenies Resa*, 495 (*Syrphus*). — California.
anchorata Macquart, *Dipt. Exot.* II, 2, 97; Tab. 16, f. 8 (*Syrphus*). — Brazil; North America.
 **arcifera* Loew, *Centur.* VI, 52. — Cuba.
ectypus Say, *J. Acad. Phil.* VI, 165, 3 (*Syrphus*); *Compl. Wr.* II, 359. — Cuba.
 **laciniosa* Loew, *Centur.* VI, 50. — Cuba.
minuta Wiedemann, *Auss. Zw.* II, 146 (*Syrphus*); Bigot, in *R. de la Sagra*, etc., 806. — Brazil (Wied.); Cuba (Bigot).
 **poecilogastra* Loew, *Centur.* VI, 51. — Cuba.
 **pulchella* Macquart, *Dipt. Exot.* 1^{er} Suppl. 138, 36; Tab. XI, f. 12 (*Syrphus*). — San Domingo.
 **subannulata* Loew, *Centur.* VI, 48. — Cuba.

Observation. *Syrphus coalescens* Walker, *Dipt. Saund.*, 237. — North America.

Syrphus corbis Walker, *Dipt. Saund.*, 237. — North America.

Both are *Mesograptae*, each represented by a single specimen in the Brit. Mus. I find in my notes that both produced on me the impression of *M. Boscii*, although the description of *S. coalescens* reads more like that of *M. planiventris* Loew; the female, described by Walker, is probably a different species.

Sphaerophoria.

- St. Fargeau et Serville, *Encycl. Méthod.* X, 513, 1825; Macquart, *Dipt. du Nord*, 1829; *Melithreptus* Loew, Oken's *Isis* 1840, 573. ⁽²¹³⁾
 **cylindrica* Say, *Amer. Ent. I.*; Tab. XI (*Syrphus*); *Compl. Wr.* I, 22; Wiedemann, *Auss. Zw.* II, 138, 38 (*id.*). — North America (common).

- Sphaerophoria contigua* Macquart, Dipt. Exot. 2^e Suppl. 62, 4.
strigata Staeger, Groenl. Antl. 362, 31; Holmgren, Ins. Nordgroenl.
 100 („an varietas *S. pictae*“? Holmgren). — Greenland.
picta Macquart; Zetterstedt, Dipt. Scand. II, 772, 7. — Europe and
 Greenland (Holmgren, Ins. Nordgroenl. 100).

- infumata* Thomson, Eugenes Resa, 501 (*Syrphus*). — California.
 **micrura* O. Sacken, Western Dipt., 330. — San Francisco.
 **sulphuripes* Thomson, Eugenes Resa, 501 (*Syrphus*); O. Sacken,
 Western Dipt., 330. — California.

Observation. Mr. Walker mentions the European *S. hieroglyphica*, *mentiastris*
 and *scripta* as occurring in Nova Scotia (Walker, List, etc., III, p. 593).

Allograpta.

- O. Sacken, Bulletin Buff. Soc. N. H. III, 49; 1876. (²¹⁴).
 ?*emarginata* Say, J. Acad. Phil. III, 91, 5 (*Scaeva*); Compl. Wr. II, 78;
 Wiedemann, Auss. Zw. II, 119, 4 (*Syrphus*). — Florida (Say;
 Virginia; Delaware (Ent. Soc. Phil.).
 **obliqua* Say, J. Acad. Phil. III, 89, 2 (*Scaeva*); Compl. Wr. II, 78;
 Amer. Ent. I; Tab. XI; Compl. Wr. I, 23; Wiedemann, Auss.
 Zw. II, 138, 39 (*Syrphus*). — North America; also in South
 America (Schiner, Dipt. Novara, etc., 353).
Syrphus securiferus Macquart, Dipt. Exot. II, 2, 100, 22 and 1^{er}
 Suppl. 139 (♀) (!).
Sphaerophoria bacchides Walker, List, etc III, 594 (!).
Syrphus signatus v. d. Wulp, Tijdschr. v. Ent. 2^e Ser. II, 144;
 Tab. IV, f. 12.
Syrphus dimensus Walker, Dipt. Saund., 235 (!).
 **fracta* O. Sacken, Western Dipt., 331. — Southern California.

Xanthogramma.

- Schiner, Wien. Ent. Monatschr. IV, 215; 1860.
 **felix* O. Sacken, Bulletin Buff. Soc. N. H. III, 67 (reproduced in the
 note (²¹⁵)). — West Point, N. Y.; Pennsylvania; Illinois.

Doros.

- Meigen, Illiger's Magaz. II; 1803.
 **aequalis* Loew, Centur. IV, 84. — Pennsylvania.
 **flavipes* Loew, Centur. IV, 83. — Pennsylvania (Lw.); New York.

Observation. For *Doros balyras* Walker, see *Temnostoma*.

Ascia.

- Meigen, System. Besch. III, 193; 1822.
 **globosa* Walker, List, etc. III, 546. — Trenton Falls, N. Y.

Sphegina.

- Meigen, System. Besch. III, 193; 1822.
 **infuseata* Loew, Centur. III, 23. — Sitka.

- **lobata* Loew, Centur. III, 21. — Northern and Middle States; Canada.
 **rufiventris* Loew, Centur. III, 22. — New York; White Mts., N. H.; Canada.

Ocyptamus.

Macquart, Hist. Nat. Dipt. I, 554; Tab. XII, f. 13; 1834; compare also Loew, Dipt. Südamerika's 293.

- **Amisissas* Walker, List, etc. III, 589 (*Syrphus*). — Georgia. (210).
 **fascipennis* Say, J. Acad. Phil. III, 100 (*Baccha*); Compl. Wr. II, 86. — Atlantic States.
Ocyptamus fascipennis Macquart, Hist. Nat. Dipt. I, 554, 2; Tab. 12, f. 13.
 **longiventris* Loew, Centur. VII, 66. — Distr. Columbia.
Radaca Walker, List, etc. III, 590 (*Syrphus*). — Florida. (216).

- **conformis* Loew, Centur. VII, 67. — Cuba.
dimidiatus Fabricius, Ent. System. IV, 310, 118 (*Syrphus*); System. Antl. 254, 25 (*Scaeva*); Wiedemann, Auss. Zw. II, 140, 42 (*Syrphus*). — West Indies (Wied.); Brazil (Schiner, Novara).
funebis Macquart, Dipt. Exot. II, 2, 105: Bigot, in Ramon de la Sagra, etc., 807. — „Teneriffa, but more probably America“ (Macq.); Cuba (Bigot); Brazil (Schiner).
 **latiusculus* Loew, Centur. VII, 68. — Cuba.
 **scutellatus* Loew, Centur. VII, 69. — Cuba.

Baccha. (*)

Fabricius, System. Antl. 199; 1805.

- **aurinota* (Harris) Walker, List, etc. III, 548. — Atlantic States (Massachusetts; White Mts.; New York, etc.).
Baccha fascipennis Wiedemann, Auss. Zw. II, 96. — No locality given.
Babista Walker, List, etc. III, 549. — Georgia.
 **cognata* Loew, Centur. III, 27. — New York (erroneously Northern Wisconsin in the Centuries).
costata Say, J. Acad. Phil. VI, 161; Compl. Wr. II, 357. — Indiana.
 **lugens* Loew, Centur. III, 24. — Northern Wisconsin.
lineata Macquart, Dipt. Exot. 1er Suppl. 139, 4; Tab. XX, f. 5. — Texas or Yucatan (Macquart).
 **obscuricornis* Loew, Centur. III, 26. — Sitka.
 **Tarchetius* Walker, List, etc. III, 549. — Georgia.
 **lemur* O. Sacken, Western Dipt., 331. — California; Wyoming Terr.
 **angusta* O. Sacken, Western Dipt., 332. — California.
Baccha elongata Fabricius, the common European species, is, I believe, the same as *B. angusta*.

(*) Some of the species placed among the Bacchae, may perhaps belong to *Ocyptamus*.

- * *capitata* Loew, Centur. III, 25. — Cuba.
- * *clavata* Fabricius, Ent. System. IV, 298, 73 (*Syrphus*); System. Antl. 200, 3 (*id.*); Wiedemann, Auss. Zw. II, 94, 4. — West Indies (Wied.); Brazil (Schiner).
- * *cochenillivora* Guérin, Rev. Zool. 1843, 350; Bull. Soc. Ent. 1848, LXXXI. — Guatemala.
- * *cubensis* Macquart, Dipt. Exot. 4^e Suppl. 161, 5. — Cuba.
- * *cylindrica* Fabricius, Spec. Ins. II, 429, 41 (*Syrphus*); Ent. System. IV, 298, 74 (*id.*); System. Antl. 199, 2; Wiedemann, Auss. Zw. II, 92. — West Indies.
- * *notata* Loew, Centur. VII, 65. — Cuba.
- * *parvicornis* Loew, Wien. Ent. Mon. V, 41; Centur. VII, 64. — Cuba.

Myiolepta.

Newman, Ent. Magaz. V, 373; 1833.

- * *aerea* Loew, Centur. X, 53. — Illinois.
- * *nigra* Loew, Centur. X, 52. — Pennsylvania.
- * *strigilata* Loew, Centur. X, 54. — Texas.
- * *varipes* Loew, Centur. IX, 79. — Virginia.

Rhingia.

Scopoli, Ent. Carniol. 358; 1763.

- * *nasica* Say, J. Acad. Phil. III, 94; Compl. Wr. II, 81; Wiedemann, Auss. Zw. II, 115. 1. — Atlantic States.

Brachyopa.

Meigen, System. Besch. III, 260; 1822.

- * *notata* O. Sacken, Bulletin Buff. Soc. N. H. III, 68 (reproduced in the note ²¹⁷). — White Mts., N. H.
- * *vacua* O. Sacken, l. c. (²¹⁷). — Quebec, Canada.
- * *ferruginea* Fallén, Syrph. 34, 3; Meigen. System. Besch. III, 263. — Europe and North America (Saskatchewan. [Loew in litt.]

Volucella.

Geoffroy, Hist. des Ins. II, 1764; *Cenogaster* Duméril, Exposition etc. 1801 and Dict. d'Hist. Natur. (Levrault in Strasburg, publisher) 1817.

- * *esuriens* Fabricius, Ent. System. IV, 281, 10 (*Syrphus*); System. Antl. 226, 9 (*id.*); Wiedemann, Auss. Zw. II, 197, 4. — West Indies (Fabr.); Texas; also in South America (Schiner, Novara).
- * *Volucella mexicana* Macquart, Dipt. Exot. II, 2, 25; Tab. V, f. 3. — Mexico (Macq.); Island Santa Rosa, California (O. Sacken, Western Dipt., 393).
- * *Volucella dispar* Macquart, Dipt. Exot. 4^e Suppl. 123, Tab. XI, f. 2. — New Granada. [Schiner, Novara, etc., 356.]
- * *Volucella Maximiliani* Jaennicke, Neue Exot. Dipt., 87. — Mexico. (²¹⁸. [Schiner, Novara, 356, from comparison of typical specimens.]
- * *evecta* Walker, Dipt. Saund., 251 — Atlantic States and British Possessions White Mts., N. H.; Massachusetts; Detroit, Michigan).

- Tolucella plumata* Macquart (non Fabr.), Dipt. Exot. 4^e Suppl. 131.
- * *fasciata* Macquart, Dipt. Exot. II, 2, 22, 2; Tab. V, f. 2. — Carolina (Macq.); Texas; Colorado (O. Sacken, Western Dipt., 334); Meztitlan (Mexico, collect. Bellardi!).
- * *pusilla* Macquart, Dipt. Exot. II, 2, 21, 1; Tab. V, f. 1 („perhaps a variety of *V. fasciata*“ Macq.). — Cuba (Macq.); Florida (M. C. Z.). (21⁹).
- * *resinosa* Fabricius, System. Antl. 226, 11 (*Syrphus*); Wiedemann, Auss. Zw. II, 201, 11; Macquart, Dipt. Exot. 3^e Suppl. 39; Tab. IV, f. 3. — North America (Pennsylvania; Maryland; Kentucky); South America (Wied.).
- * *avida* O. Sacken, Western Dipt., 333. — California (O. S.); Tehuacan, Mexico (Coll. Bellardi).
- * *satur* O. Sacken, Western Dipt., 333. — Colorado, Utah.
- * *abdominalis* Wiedemann, Auss. Zw. II, 196, 2; Macquart, Dipt. Exot. II, 2, 25, 8. — Cuba.
- amethystina* Bigot, Ann. Soc. Ent. de Fr. 1875, 479. — Mexico.
- aperta* Walker, Trans. Ent. Soc. N. Ser. V, 292. — Mexico.
- * *apicalis* Loew, Centur. VI, 36. — Cuba.
- castanea* Bigot, Ann. Soc. Ent. Fr. 1875, 476. — Mexico.
- chalybescens* Wiedemann, Auss. Zw. II, 204. — Brazil (Wied.); Cuba (Jaenicke, Neue Exot. Dipt. p. 4).
- Haagii* Jaenicke, Neue Exot. Dipt., 89. — Mexico.
- lata* Wiedemann, Auss. Zw. II, 195. — Mexico.
- metallifera* Walker, List, etc. III, 636. — Mexico, Venezuela.
- mellea* Jaenicke, Neue Exot. Dipt., 88. — Mexico.
- nigrifacies* Bigot, Ann. Soc. Ent. 1875, 479. — Mexico.
- * *obesa* Fabricius, System. Ent. 763, 5 (*Syrphus*); Ent. Sytem. IV, 232 (*id.*); System. Antl. 227 (*id.*); Wiedemann, Auss. Zw. II, 199; Macquart, Hist. Nat. Dipt. I, 494, 5; St. Fargeau et Serville, Encycl. Méth. X, 786 (*Ornidia*). — In the tropics everywhere; West Indies; South America; Asia; Africa (Mr. Bellardi's collection contains a specimen of from New Orleans).
- picta* Wiedemann, Auss. Zw. II, 201; Bigot, in R. de la Sagra etc. 802. — Brazil (Wied.); Cuba (Bigot).
- pulehripes* Bigot, Ann. Soc. Ent. Fr. 1875, 480. — Mexico.
- postica* Say, J. Acad. Phil. VI, 166, 2; Compl. Wr. II, 360. — Mexico.
- purpurifera* Bigot, Ann. Soc. Ent. Fr. 1875, 477. — Mexico.
- * *sexpunctata* Loew, Wien. Ent. Monatschr. V, 39; Centur. VI, 37. — Cuba.
- tibialis* Macquart, Dipt. Exot. 1^{er} Suppl. 123, 14. — Yucatan.
- tricincta* Bigot, Ann. Soc. Ent. Fr. 1875, 477. — Mexico.
- tristis* Bigot, Ann. Soc. Ent. Fr. 1875, 482. — Mexico.
- varians* Bigot, Ann. Soc. Ent. Fr. 1875, 481. — Mexico.
- viridula* Bigot, Ann. Soc. Ent. Fr. 1875, 481. — Mexico.
- violacea* Say, J. Acad. Phil. VI, 166, 1; Compl. Wr. II, 360. — Mexico.

variegata Bigot, Ann. Soc. Ent. Fr. 1875, 478. — Mexico.

Observation. *Volucella vacua* Fabricius is quoted by Walker, List, etc. III, 637 from Georgia and Florida.

Temnocera.

St. Fargeau et Serville, Encycl. Méth. X, 786, 1825; Macquart, Dipt. Exot. II, 2, 27. (220).

**megacephala* Loew, Centur. IV, 57. — California.

**setigera* O. Sacken, Western Dipt., 334. — Northern New Mexico (O. S.); Tehuacan, Mexico (Collect. Bellardi).

pubescens Loew, Wien. Ent. Monatschr. V, 38; id. Centur. VI, 35. — Cuba.

**purpurascens* Loew, Centur. VIII, 52. — Hayti.

unilecta Walker, Trans. Ent. Soc. N. Ser. V, 292. — Mexico.

viridula Walker, Trans. Ent. Soc. N. Ser. V, 292. — Mexico.

Copestylum.

Macquart, Dipt. Exot. Suppl. 1er, 124; 1846.

**marginatum* Say, J. Acad. Phil. VI, 167, 3; Compl. Wr. II, 360 (*Volucella*). — Mexico (Say); Waco, Texas (O. Sacken, Western Dipt., 233).

NB. Is *C. flaviventris* Macq. Suppl. 1, 125; Tab. X, f. 16 from Venezuela, a different species? The descriptions read remarkably alike.

Sericomyia.

Meigen, in Illiger's Magaz. II, 1803.

**chalcopyga* Loew, Centur. III, 20. — Sitka.

**limbipennis* Macquart, Dipt. Exot. 2^e Suppl. 58, 2 (*female*). — Atlantic States and Canada.

Sericomyia chrysotoxoides, Macquart, Dipt. Exot. II, 2, 19, 1; Tab. III, f. 3 *bis*. (*male*).

Sericomyia filia Walker, List, etc. III, 596.

**militaris* Walker, List, etc. III, 595. — Huds. B. Terr.; Nova Scotia; White Mts., N. H.; Colorado Mts.; Red River of the North.

**sexfasciata* Walker, List, etc., III, 596. — Huds. B. Terr.

Observation. *Volucella lappona* O. Fabricius, Fauna Groenl. 208, 169, must be a *Sericomyia*; whether it is *Seric. lappona* Linnaeus I do not know; Schiödte omits it in his enumeration.

Arctophila.

Schiner, Wien. Ent. Monatschr. IV, 215; 1860.

**flagrans* O. Sacken, Buffalo Bull. Soc. N. Hist. III, 69; Western Dipt. 335. — Rocky Mts., Colorado.

Eristalis.

Latreille, Dict. d'Hist. Nat.; H. N. Crust. et Ins. XIV, 363; 1804.

- * **aeneus** Scopoli, Fabricius, Meigen (System. Besch. etc. III, 384, 2).
— Europe and North America (common); occurs also in Algiers, the Canary Islands, Malta, Syria (Schiner, die Oesterr. Syrphiden, 120).

Eristalis sincerus Harris, Ins. Injur. to Veget. 3^d ed. 609. [The identity with the European species is acknowledged by Loew, in Sillim. Journ., Vol. XXXVII, 317.]

Eristalis cuprorittatus Wiedemann, Auss. Zw. II, 190, 54.

- albiceps** Macquart, Dipt. Exot. II, 2, 56, 41. — Carolina. (²²¹).

- * **atriceps** Loew, Centur. VI, 64. — White Mountains. N. H.; Canada.
Eristalis compactus Walker, List, etc. III, 619. — Huds. B. Terr. (²²²).

- * **Androclus** O. Sacken (non Walker), Western Dipt., 337. — Quebec; Western New York, White Mts., N. H.; Utah; Yucón River, Alaska. (²²³).

- * **Bastardi** Macquart, Dipt. Exot. II, 2, 35, 7; Tab. IX, f. 1. — North America (common in the Atlantic States and British Possessions).
Eristalis nebulosus Walker, List, etc. III, 616 (!).

(?) *Eristalis semimetallicus* Macquart, Dipt. Exot. 4^e Suppl. 140, 65. — Nova Scotia, Canada. (²²⁴).

- * **dimidiatus** Wiedemann, Auss. Zw. II, 180, 41. — Atlantic States. (²²⁵).

Eristalis implexus Walker, List, etc. III, 617.

Eristalis niger Macquart, Hist. Nat. Dipt. I, 505, 15.

Eristalis L'Herminieri Macquart, Dipt. Exot. II, 2, 55, 38 (*male*).

Eristalis chalybeus Macquart, Dipt. Exot. II, 2, 55, 39 (*male* and *female*).

Eristalis incisuralis Macquart, Dipt. Exot. 4^e Suppl. 139, 64 (*female*).

- * **flavipes** Walker, List, etc. III, 633. — British Possessions; White Mountains, N. H.; Massachusetts; Newport, R. I.; Detroit, Mich. (²²⁶).

Milesia Barda Say, J. Acad. Phil. VI, 163; Compl. Wr. II, 357; *female* (for the *male*, see *Mallota Barda*).

- * **inornatus** Loew, Centur. VI, 68. — Red River of the North (Loew).

- * **latifrons** Loew, Centur. VI, 65. — Matamoras (Loew); Texas; Iowa,

- * **melanostomus** Loew, Centur. VI, 69. — British Possessions; Oregon; Minnesota; Massachusetts; Illinois.

Eristalis flavipes Walker, List, etc. III, 633; Var. β [Loew].

- * **obscurus** Loew, Centur. VI, 67. — Red River of the North.

- * **oestriformis** Walker, List, etc. III, 573 (*Syrphus*). — Huds. B. Terr. (²²⁷).

- * **pilosus** Loew, Centur. VI, 70. — Greenland.

- * **saxorum** Wiedemann, Auss. Zw. II, 158, 9; Macquart, Dipt. Exot. II, 2, 33, 5. — Savannah (Wied.); Philadelphia (Macq.); Massachusetts (M. C. Z.).

Eristalis pervagus (Harris) Walker, List, etc. III, 618.

- ***tenax** Linné, etc. Europe and North America (²²); also Cape of Good Hope and China (Schiner, Dipt. Austriaca, Syrphidae, 10; also Siberia and Japan (Loew, Wien. Ent. Monatschr. II, 101).
- ***transversus** Wiedemann, Auss. Zw. II, 188, 51; Macquart, Dipt. Exot. II, 2, 33, 4; Tab. IX, f. 12. — Atlantic States.
(?) *Eristalis philadelphicus* Macquart, Dipt. Exot. II, 2, 34, 6; Tab. VIII, f. 4. (²²⁹).
Eristalis pumilus Macquart, Dipt. Exot. II, 2, 57, 43. — North America.
Eristalis vittatus Macquart, Hist. Nat. Dipt. I, 507, 19. — North America.
- ***vinetorum** Fabricius, Ent. System. Suppl. 562; System. Antl. 235, 13 (*Syrphus*); Wiedemann, Auss. Zw. II, 163, 15; Macquart, Dipt., Exot. II, 2, 41, 16. — Cuba (Fab.); Brazil (Schiner, Novara, 361); Pennsylvania (Carlisle Springs, August 1860); Florida; Matamoros.
Eristalis trifasciatus Say, J. Acad. Phil. VI, 165; Compl. Wr. II, 359. — Indiana (the locality „Mexico“ given in the Compl. Wr. of Say, is erroneous).
Eristalis uvarum Walker, List, etc. III, 623. — Jamaica [Loew in litt.].
(?) *Eristalis thoracicus* Jaennicke, Neue Exot. Dipt. 91. — Mexico.
- ***hirtus** Loew, Centur. VI, 66; O. Sacken, Western Dipt., 335. — California, Colorado.
Eristalis temporalis Thomson, Eugenes Resa, 490.
- ***stipator** O. Sacken, Western Dipt., 336. — California, Colorado.
- ***atrimanus** Loew, Centur. VI, 62. — Cuba.
Bellardii Jaennicke, Neue Exot. Dipt. 92. — Mexico.
cubensis Macquart, Dipt. Exot. II, 2, 42, 19 (“♀ of *albifrons* or variety of *unmiplex* Macq.?” Macquart). — Cuba.
diminutus Walker, List, etc. III, 622. — Mexico.
expictus Walker, Trans. Ent. Soc. N. Ser. V, 291. — Mexico.
familiaris Walker, Trans. Ent. Soc. N. Ser. V, 290. — Mexico.
femoratus Macquart, Dipt. Exot. II, 2, 40, 15; Tab. IX, f. 6; also 1^{er} Suppl. 130; Tab. IX, f. 6. — Rio Janeiro; Columbia, S. A.; Yucatan. [Syn. of *E. furcatus* Wiedemann, Auss. Zw. II, 176, 34; Brazil and Montevideo. Verrall in lit.].
gnadalupensis Macquart, Dipt. Exot. II, 2, 32, 3. — Guadeloupe.
- ***Gundlachi** Loew, Centur. VI, 61. — Cuba.
- ***hortorum** Fabricius, System. Ent. 764, 11; Ent. System. IV, 286, 29 (*Syrphus*); System. Antl. 236, 16; Wiedemann, Auss. Zw. II, 169, 24. — West Indies.
Musca surinamensis Degeer, VI, 145; Tab. XXIX, f. 1.
impositus Walker, Trans. Ent. Soc. N. Ser. V, 289. — Hayti.
lateralis Walker, Linn. Trans. XVII, 347, 42. — Brazil; Chili; Guyana; Mexico; Jamaica (Walker, List, etc. III, 622).
mexicanus Macquart, Dipt. Exot. 2^e Suppl. 59, 54. — Mexico.

semicirculus Walker, Dipt. Saund., 249. — Honduras.

* *seniculus* Loew, Centur. VI, 63. — Cuba.

testaceicornis Macquart, Dipt. Exot. 4^e Suppl. 138, 62. — Mexico.

tricolor Jaennicke, Neue Exot. Dipt. 92. — Mexico.

Observation.

Eristalis Androctus Walker, List, etc. III, 612. — British Possessions.

Eristalis frater Walker, List, etc. III, 614.

Eristalis chalpus Walker, Dipt. Saund., 247; Canada.

All three are *Helophilii*; see the note⁽²³⁰⁾.

Eristalis intersistens Walker, List, etc. III, 615; Trenton Falls, seems to be *Nyctota badia*.

Eristalis decius Walker, List, etc. III, 604; Trenton Falls, is *Helophilus similis*.

Eristalis Evers Walker, Dipt. Saund., 246; North America. I could not find it in the British Museum, and have for this reason omitted it as unrecognizable, from the above list.

Two species of Macquart's are also omitted from the List of described species:

Eristalis basilaris Macquart, Hist. Nat. Dipt. I, 502, 4. — North America.

Eristalis inflatus Macquart, l. c. 507, 18. — North America.

I did not find the types of these two species, either in Lille, or in Paris and the descriptions do not apply to any of the known species.

Pteroptila.

Loew, Centur. VI, 59, 1865; *Plagiocera* Macquart, Dipt. Exot. II, 2, 59. ⁽²³¹⁾

acuta Fabricius, System. Antl. 189, 7 (*Milesia*); Wiedemann, Auss.

Zw. II, 110, 8 (*id.*). — Carolina.

* *crucigera* Wiedemann, Auss. Zw. II, 105, 2 (*Milesia*); Macquart, Dipt. Exot. II, 2, 60, 1 (*Plagiocera*), Tab. X, f. 7; also 1^{er} Suppl. 134. — Florida; Georgia; Dallas, Texas; Yucatan (Macq.).

Mallota milesiformis Macquart, Hist. Nat. Dipt. I, 500 [Synonymy by Macquart].

cineta Drury, Ins. I, 109; Tab. XLV, f. 6 (*Musca*). — Jamaica, San Domingo.

Syrphus pinguis Fabricius, System. Ent. 763, 6; Ent. System, IV, 282, 16; System. Antl. 233, 6 (*Eristalis*); Wiedemann, Auss. Zw. II, 193, 61 (*id.*).

Milesia Ania Walker, List, etc. III, 564; Macquart, Dipt. Exot. 5^e Suppl. 94, 9 [I found both of these synonymies in the Berlin Museum].

* *decora* Loew, Centur. VI, 59. — Cuba.

* *pratorum* Fabricius, System. Ent. 765, 13; Ent. System. IV, 286, 31 (*Syrphus*); System. Antl. 236, 18 (*Eristalis*). — West Indies.

* *ruficus* Wiedemann, Auss. Zw. II, 105, 3 (*Milesia*). — Cuba.

zonata Loew, Centur. VI, 60. — Mexico.

Helophilus.

Meigen, in Illiger's Magaz. II, 1803. ⁽²³²⁾

* *chrysostomus* Wiedemann, Auss. Zw. II, 174 (*Eristalis*). — Savannah (Wied.); New York; White Mts., N. H.

- ***borealis** Staeger, Groenl. Antl. 359, 25; Loew, Stett. Ent. Zeitschr. VII, 123. — Greenland.
- ***divisus** Loew, Centur. IV, 78. — Distr. Columbia.
- ***glacialis** Loew, Stett. Ent. Zeitschr. VII, 121. — Labrador.
- ***groenlandicus** O. Fabricius, Fauna Groenl. 203, 170 (*Tabanus*); Loew, Stett. Ent. Zeitschr. VII, 119. — Arctic America; Greenland; Twin Lakes (Colorado); Labrador; also in Europe, Sweden. *Helophilus arcticus* Zetterstedt, Ins. Lapp. 595, 2; Dipt. Scand. II, 678, 2 (ex parte); VIII, 3117, 2; Staeger, Kroejer's Tidskr. N. R. I, 359; Holmgren, Nordgroenl. Ins. 100. [Loew and Schioedte]. *Helophilus bilineatus* Curtis, Ins. of Ross's Exp. LXXVIII [Schioedte, Berl. Ent. Zeitschr. 1859, 153].
- (?) *Helophilus latro* Walker, List, etc. III, 607. — Huds. B. Terr.; Nova Scotia.
- ***hamatus** Loew, Centur. IV, 79. — Fort Resolution, Huds. B. Terr.
- ***integer** Loew, Centur. IV, 76. — New York.
- ***laetus** Loew, Centur. IV, 77. — New York; Northern Wisconsin; Illinois.
- ***latifrons** Loew, Centur. IV, 73. — Northern States; Nebraska; Red of the North; California (O. Sacken, Western Dipt., 333).
- ***lineatus** Fabricius, Meigen, Curtis (Brit. Ent.) etc., Loew, Stett. Ent. Zeitschr. 1846, 167. — Europe; North America (Massachusetts; Illinois; Quebec, Canada.).
- (?) *Helophilus stipatus* Walker, List, etc. III, 602. — Trenton Falls. (²³³).
- Helophilus Anansis* Walker, List, etc. III, 603. — Huds. B. Terr.
- Novae Scotiae** Macquart, Dipt. Exot., 2^e Suppl. 60, 10. — Nova Scotia.
- ***obscurus** Loew, Centur. IV, 74. — Fort Resolution, Huds. B. Terr.; South Park, Colorado. (²³⁴).
- ***obsoletus** Loew, Centur. IV, 75. — Fort Resolution, Huds. B. Terr.
- porcus** Walker, List, etc. III, 551 (*Eumerus*). — Huds. B. Terr. (²³⁵).
- ***similis** Macquart, Dipt. Exot. II, 2, 64, 7. — Georgia (Macq.); United States; Canada.
- Helophilus fasciatus* Walker, List, etc. III, 605. — Trenton Falls.
- Eristalis decisus* Walker, List, etc. III, 604. — Trenton Falls.
- Helophilus susurrans* Jaennicke, Neue Exot. Dipt. 94. — Illinois. (²³⁶).
- ***polygrammus** Loew, Centur. X, 55. — California (Sierra Nevada); Oregon (O. Sacken, Western Dipt., 338; Mexico (? I saw in the Berlin Mus. a specimen very like this species).
- femoralis** Walker, List, etc. III, 603. — Mexico.
- mexicanus** Macquart, Dipt. Exot. II, 2, 64, 6; Tab. IX, f. 2. — Mexico.

Observation. *Eristalis Androctus* and *frater* (Walker, List, etc.) and *E. chalcipus* (Walker, Dipt. Saund.) are *Helophili*; see the observation at the end of *Eristalis*, and the Note (²³⁰).

About the occurrence in North America of *Heloph. pendulus*, *versicolor*, *floreus*, see the Note (¹⁹⁷).

For *Helophilus albiceps* Macq. see *Polydonta curvipes*.

Teuchocnemis.

O. Sacken, Bull. Buff. Soc. N. H., III, 58; 1876. (²²⁷).

* *Bacuntius* Walker, List, etc. III, 563 (*Milesia*). — Georgia; Texas. (²²⁸).

* *lituratus* Loew, Centur. IV, 81 (*Pterallastes*). — Pennsylvania.

Pterallastes.

Loew, Centur. IV, 80; 1863.

* *thoracicus* Loew, Centur. IV, 80. — Pennsylvania.

Mallota.

Meigen, System. Besch. III, 377; 1822; *Imatisma* Macquart, Dipt. Exot. II, 2, 67; 1842.

* *posticata* Fabricius, System. Antl. 237, 21 (*Eristalis*); Wiedemann, Auss. Zw. II, 194, 62 (translation from Fabric.); Macquart, Dipt. Exot. II, 2, 68; Tab. XII, f. 2 (*Imatisma*). — Atlantic States; the same, or a similar species in California (O. Sacken, Western Dipt., 338).

Syrphus cimbiciformis Fallen, *Eristalis cimbiciformis* Meigen. The north of Europe (the identity of this species with the N. American one is acknowledged by Mr. Loew in Neue Beitr., IV, 18 and in Sillim. J. Vol. XXXVII, 317).

* *barda* Say, J. Acad. Phil. VI, 163; Compl. Wr. II, 357 (*Milesia*) male; (the female described by Say is that of *Eristalis flavipes* Walker; compare note (²²⁹) Catskill, N. Y.; Massachusetts; White Mts, N. H. *Eristalis coactus* Wiedemann, Auss. Zw. II, 165 (without locality). *Merodon Balamus* Walker, List, etc. III, 599. — New York.

Bautias Walker, List, etc. III, 600 (*Merodon*). — Georgia. (²³⁰).

bipartita Walker, List, etc. III, 599 (*Merodon*). — Georgia.

Merodon.

Meigen, Illiger's Magaz. II; 1803.

No american species are as yet recorded. The european *Merodon narcissi* has been occasionally introduced to the United States in dutch bulbs and the fly reared from them by Mr. F. G. Sanborn (see Packard's Guide, 399).

For *Merodon Bautias*, *Balamus*, *bipartitus* Walker, see *Mallota*.

Polydonta.

Macquart, Dipt. Exot. 4^e Suppl. 144; 1849.

* *curvipes* Wiedemann, Auss. Zw. II, 149, 3 (*Merodon*). — Northern States, and British Possessions; the same, or a similar species in California and Colorado; see O. Sacken, Western Dipt., 338. *Polydonta bicolor* Macquart, Dipt. Exot. 4^e Suppl. 144, 1; Tab. XIII, f. 6 (male).

Helophilus albiceps Macquart, Dipt. Exot. 1^{er} Suppl. 132, 9; Tab. XI, f. 7 (female).

Merodon morosus Walker, List, etc. III, 599 (female).

Tropidia.

Meigen, System. Besch. III, 346; 1822.

albistylum Macquart, Dipt. Exot. 2^e Suppl. 60, I; Tab. II, f. 10. — North America.

* *mamillata* Loew, Centur. I, 68. — Illinois.

* *quadrata* Say, Amer. Ent. I; Tab. VIII; Compl. Wr. I, 14 (*Xylota*); Wiedemann, Auss. Zw. II, 101. 6 (*id.*); Macquart, Dipt. Exot. II, 272. — United States (Massachusetts, White Mts., N. H.; New York); California (O. Sacken, Western Dipt., 338).

Criorrhina.

Criorrhina Hoffmannsegg (*in litt.*), was introduced as a subgenus of *Milesia* in Meigen, System. Besch. III, 236; 1822, appears as such in St. Fargeau et Serville, Encycl. Méth. X, 518, 1825; adopted as a genus in Macquart, Hist. Nat. Dipt. I, 497; 1834.

* *analis* Macquart, Dipt. Exot. II, 2, 79; Tab. XV, f. 2 (*Milesia*). — North America (Macq.).

* *armillata* O. Sacken, Bull. Buff. Soc. N. H. III, 68 (reproduced in the note⁽²⁴⁰⁾).

Crioprora.

nov. gen.⁽²⁴¹⁾.

* *cyanogaster* Loew, Centur. X, 51; (*Brachypalpus*). — Pennsylvania.

* *alopex* O. Sacken, Western Dipt., 338 (*Pocota*). — California.

* *cyarella* O. Sacken, Western Dipt., 339 (*Pocota*). — California.

Brachypalpus.

Macquart, Hist. Nat. Dipt. I, 523; 1834.

Amithaon Walker, List, etc. III, 567 (*Milesia*). — North Carolina.⁽²⁴²⁾

* *frontosus* Loew, Centur. X, 50. — Distr. Columbia, Texas, Massachusetts. (?) *Xylota Oarus* Walker, List, etc. III, 558. — Trenton Falls.

* *verbosus* (Harris) Walker, List, etc. III, 568. — Connecticut, Canada, Virginia.

Musca tomentosa Swederus, Vetensk. Ak. Nya Handl.; 1787.

Xylota.

Meigen, System. Besch. III, 211; 1822.⁽²⁴³⁾

Aepalius Walker, List, etc. III, 557. — Georgia.⁽²⁴⁴⁾

Anthreas Walker, List, etc. III, 556. — Trenton Falls, New York.

* *angustiventris* Loew, Centur. VI, 58. — Illinois; Western New York.

Baton Walker, List, etc. III, 554 („perhaps synon. with *ejuncida*“ Wk.). — Florida; Nova Scotia.

* *barbata* Loew, Centur. V, 40. — Sitka.

* *bicolor* Loew, Centur. V, 39. — Illinois (Lw.); Englewood, N. J. (O. S.).

* *chalybea* Wiedemann, Auss. Zw. II, 98. — No locality (Wied.) Northern and Middle States (Illinois; Pennsylvania).

- communis* Walker, List, etc. III, 557. — Huds. B. Terr. (perhaps the same, as *obscura* Lw.).
- curvipes* Loew, Neue Beitr. II, 19, 71. — Europe and North America; White Mts., N. H. (About the identity of the species, see O. Sacken, Bull. Buff. Soc. N. H. III, 70, also reproduced in the note (²⁴⁶)).
- * *ejuncida* Say, Amer. Ent. I; Tab. VIII; Compl. Wr. I, 15; Wiedemann, Auss. Zw. II, 100, 5. — Florida; Pennsylvania (Say); New England (common) (²⁴⁶).
- flavifrons* Walker, List, etc. III, 537. — Huds. B. Terr.
- * *fraudulosa* Loew, Centur. V, 41. — Illinois, Wisconsin, White Mts., N. H.
- * *pigra* Fabricius, Meigen, etc. — Europe and North America.
Xylota haematodes Fabricius, System. Antl., 193, 21 (*Milesia*); Say, Amer. Ent. I; Tab. VIII; Compl. Wr. I, 16; Wiedemann, Auss. Zw. II, 99, 3; Macquart, Dipt. Exot. II, 2, 73; Tab. XIII, f. 4. — North America. [About the specific identity, see Loew, Sillim. Journ. Vol. XXXVII, 317.]
- Libo* Walker, List, etc. III, 556. — Nova Scotia.
- * *metallica* Wiedemann, Auss. Zw. II, 102, 8. — Georgia.
- * *obscura* Loew, Centur. VI, 55. — Red River of the North.
- * *quadrinaculata* Loew, Centur. VI, 56. — Illinois.
- * *subfaciata* Loew, Centur. VI, 57. — Red River of the North.
- * *vecors* O. Sacken, Bull. Buff. Soc. N. H., III, 69 (reproduced in the note (²⁴⁶)). — White Mts., N. H.
- arcuata* Say, J. Acad. Phil. VI, 162; Compl. Wr. II, 357. — Mexico.
- * *pachymera* Loew, Centur. VI, 54. — Cuba.
- * *pretiosa* Loew, Wien. Ent. Monatschr. V, 39; Centur. VI, 53. — Cuba.
- subcostalis* Walker, Trans. Ent. Soc. Phil. N. S. V, 291 — Mexico.

Observation. For *Xylota Oarus* Walker, see *Brachypalpus frontosus*.

Syritta.

St. Fargeau et Serville, Encycl. Méthod. X, 808; 1825.

- * *pipiens* Linné, Meigen, etc. — Europe and North America (common); also in California, Nevada, Utah.
- Xylota proxima* Say, Amer. Ent. I; Tab. VIII; Compl. Wr. I, 16; Wiedemann, Auss. Zw. II, 102, 9. (About the identity of the European and North American species, compare Loew, Sillim. Journ. l. c.)

Eumerus.

Meigen, System. Besch. III, 202; 1822.

No species from North America have been as yet recorded. For *Eumerus porcus* Walker, see *Helophilus porcus*; for *Eumerus pricernus* Walker, see *Mesograpta geminata*. (²⁴⁷).

Genus novum? ⁽²⁴⁸⁾.

- * *badia* Walker, List, etc. III, 559 (*Xylota*). — New York (Walker); White Mts., N. H.; Maine.
 (?) *Eristalis intersistens* Walker, List, etc. III, 615. — Trenton Falls.
notata Wiedemann, Auss. Zw. II, 109, 7 (*Milesia*). — Macquart, Dipt. Exot. II, 2, 80, 2; Tab. XV, f. 5 (*id.*). — Georgia; Carolina.
Syrphus profusus Walker, List, etc. III, 578. — Georgia.

Somula.

- Macquart, Dipt. Exot. 2^e Suppl. 57; 1847.
 * *decora* Macquart, Dipt. Exot. 2^e Suppl. 57, 1; Tab. II, f. 11. — Middle States.

Chrysochlamys.

- Walker (Rondani), Ins. Brit. I, 279; 1851. ⁽²⁴⁹⁾.
 * *buccata* Loew, Centur. IV, 72; O. Sacken, Western Dipt., 340. — Alleghany Mts., Virginia.
 * *dives* O. Sacken, Western Dipt., 341. — Kentucky.
 * *nigripes* O. Sacken, Western Dipt., 341. — Massachusetts.
 * *croesus* O. Sacken, Western Dipt., 341. — Utah.

Spilomyia.

- Meigen, in Illiger's Magaz. II; 1803. ⁽²⁵⁰⁾.
 * *fusca* Loew, Centur. V, 34. — Pennsylvania, Massachusetts, White Mts., N. H.
 * *hamifera* Loew, Centur. V, 33. — Pennsylvania; Virginia; Florida; Kentucky.
 * *longicornis* Loew, Centur. X, 49. — Massachusetts; Pennsylvania; Texas; Kansas.

Temnostoma.

- St. Fargeau et Serville, Encycl. Méth. X, 518; 1825.
 * *aequalis* Loew, Centur. V, 36. — British North America; New England (White Mts., N. H., not rare). ⁽²⁵¹⁾.
 * *alternans* Loew, Centur. V, 37. — Pennsylvania (Lw.); Quebec, Can.; White Mts., N. H.
 * *Balyras* Walker, List, etc. III, 577 (*Doros*). — New York; White Mts., N. H.
Temnostoma obscura Loew, Centur. V, 35. — British America. ⁽²⁵²⁾.
 * *excentrica* Harris, Ins. of New England, etc. 3^d ed., 609; f. 267 (*Milesia*). About O. Sacken's description, given in the same volume, compare the note ⁽²⁵¹⁾. — New England (Harris; Illinois (O. Sacken).

Lepidomyia.

- Loew, Centur. V, 38; 1864.
 * *calopus* Loew, Centur. V, 38. — Cuba.

Milesia.

Latreille, Hist. Nat. des Crust. et des Ins. XIV, 361; 1804.

- ***ornata** Fabricius, System. Antl. 188, 5; 1805; Wiedemann, Auss. Zw. II, 106, 4; Macquart, Dipt. Exot. II, 2, 81, 4; Tab. 15, f. 4. — United States, from New England to Texas, Florida and Kansas; Guadeloupe (Macq.).

Musca virginienensis Drury, Illustr. II; Tab. XXXVII, f. 6; 1773. [Wied.]

Syrphus trifasciatus Hausmann, Ent. Bemerk. II, 67, 10; 1799. [Wied.]

- ***limbipennis** Macquart, Dipt. Exot. 4^e Suppl. 147, 8; Tab. XIV, f. 3. — North America (Macq.; Florida. ⁽¹⁸⁵³⁾).

Sphecomya.

Latreille, Fam. Natur. du Règne Anim.; 1825; Dict. Classique d'Hist. Nat. XV, 545; 1829; *Tyzonhausia* Gorski; 1852. ^(2nd).

- ***vittata** Wiedemann, Auss. Zw. II, 87 (*Chrysotoxum*). — Unknown locality (Wied.); New York; Virginia; White Mts., N. H.; Colorado (O. Sacken, Western Dipt., 341).

Psarus ornatus Wiedemann, Auss. Zw. II, 91, 1; Tab. IX, f. 7; Macquart, Hist. Nat. Dipt. I, 491, 2; Dipt. Exot. II, 2, 18, 1; Tab. III, f. 3. — Georgia (Wied.).

- ***brevicornis** O. Sacken, Western Dipt., 341. — Sierra Nevada, Cal.

Mixtemya.

Macquart, Hist. Nat. Dipt. I, 491; 1834.

- ***quadrifasciata** Say, Long's Exped. App. 377 (*Paragus*); Compl. Wr. I, 257; Wiedemann, Auss. Zw. II, 91, 2 (*Psarus*); Macquart, Hist. Nat. Dipt. I, 491; Tab. XI, f. 8. — Canada (Quebec); White Mts., N. H.; Cambridge; Mass.; Connecticut.

- ***ephippium** O. Sacken, Bull. Buff. Soc. N. H. III, 70 (reproduced in the note ^(2nd)). — Mexico.

Ceria.

Fabricius, System. Ent. IV, 277; 1794. ^(2nd).

- ***abbreviata** Loew, Centur. V, 48; compare also X, 57, nota 2. — Pennsylvania, New York.

pictula Loew, Neue Beitr. I, 17. — Southern States.

- ***signifera** Loew, Neue Beitr. I, 19. — Mexico (Lw.; Texas (M. C. Z.; determination by Lw.).

- ***tridens** Loew, Centur. X, 57. — Sierra Nevada, Cal.

arietis Loew, Neue Beitr. I, 17. — Mexico.

cacia Walker, Trans. Ent. Soc. N. Ser. V, 257. — Mexico.

Daphnaeus Walker, List, etc. III, 537; Westwood, Trans. Ent. Soc. V, 231; Tab. XXXIII, f. 7; Loew, Neue Beitr. etc. I, 18. — **Jamaica. tricolor** Loew, Wien. Ent. Monatsch. V, 37. — Cuba.

FAMILY CONOPIDAE.

Conops.

Linné, Fauna Suecica; 1761. (257).

- aethiops** Walker, List, etc. III, 671. — North America.
analís Fabricius, System. Antl. 175, 3; Wiedemann, Auss. Zw. II, 237, 5; Macquart, Dipt. Exot. II, 3, 14, 12; Tab. I, f. 3. — South America (Fabr.); Carolina (Macq.).
brachyrrhynchus Macquart, Dipt. Exot. II, 3, 15, 13; Tab. I, f. 8. — North America.
bulbirostris Loew, Neue Beitr., etc. I, Conops, 30. — North America (Loew *in litt.*).
castanopterus Loew, Neue Beitr., etc. I, Conops, 33. — Savannah.
costatus Fabricius, System. Antl. 175, 4; Wiedemann, Auss. Zw. II, 238, 6; Macquart, Dipt. Exot. II, 3, 14, 11; Tab. I, f. 4. — South America (Fabr.); Carolina (Macq.).
***excisus** Wiedemann, Auss. Zw. II, 234, 1 and 236, 3 (*C. excisa* ♀ and *C. sagens* ♂); Loew, Neue Beitr., etc. I, Conops, 28. — Georgia, Florida.
flaviceps Macquart, Dipt. Exot. II, 3, 15, 14. — North America.
fulvipennis Macquart, Dipt. Exot. II, 3, 13, 10; Tab. I, f. 9. — Georgia.
***genualis** Loew, Neue Beitr., etc. I, Conops, 32. — Middle States.
marginatus Say, J. Acad. Phil. III, 82, 1; Compl. Wr. II, 73; Wiedemann, Auss. Zw. II, 240, 9; Loew, Neue Beitr., etc. I, Conops, 34. — Missouri.
***pictus** Fabricius, Ent. System. IV, 391, 3; System. Antl. 176, 5; Macquart, Dipt. Exot. II, 3, 13, 9 (*ex parte*). — West Indies (Fabr.); Carolina (Macq.).
Conops Ramondi Bigot, in Ramon de la Sagra etc. 803; Tab. XX, f. 6. [Loew *in litt.*; see note 25].
***sagittarius** Say, J. Acad. Phil. III, 83, 2; Loew, Neue Beitr., etc. I, Conops, 31. — Atlantic States.
Conops nigricornis Wiedemann, Auss. Zw. II, 236, 4. [Wied.].
tibialis Say, J. Acad. Phil. VI, 171; Compl. Wr. II, 363. — Indiana.

Stylogaster.

- Macquart, Hist. Nat. Dipt. II, 38; 1835; Dipt. Exot. II, 3, 17.
Stylomyia Westwood, Proc. Zool. Soc. of London, 1850, 269.
***stylatus** Fabricius, Syst. Antl. 177, 11 (*Conops*); Wiedemann, Auss. Zw. II, 243, 2 (*Myopid*); Macquart, Dipt. Exot. II, 3, 17; Tab. II, f. 3. — Pennsylvania, Delaware; also in Brazil (Fabr., Wied.).

Myopa biannulata Say, J. Acad. Phil. 81, 3; Compl. Wr. II, 72.

Stylomyia confusa Westwood, Proc. Zool. Soc. London, 1850, 269. —
No locality. (¹⁵).

Oncomyia.

Loew, Centur. VII, Nr. 73, thus amends the earlier name *Oecomyia* Rob.
Desv., Dipt. des Env. de Paris, 50; 1853.

* *abbreviata* Loew, Centur. VII, 73. — Distr. Columbia.

* *loraria* Loew, Centur. VII, 74. — White Mts., N. H.

Zodion.

Latreille, Précis etc.; 1796.

abdominale Say, J. Acad. Phil. III, 84, 2; Compl. Wr. II, 74; Wiedemann, Auss. Zw. II, 242, 2. — Rocky Mountains.

* *nanellum* Loew, Centur. VII, 75. — Distr. Columbia.

occidentis Walker, List, etc. III, 676. — Ohio.

splendens Jaennicke, Neue Exot. Dipt. 97. — Mexico.

Dalmania.

Dalmanina Rob. Desv. Ess. Myod. 248, 1830; *Dalmania* (*id.*), Myopaires; the latter adopted by Loew, Centur. Vol. II, p. 290. *Stachynia* Macquart, Dipt. du Nord, 1833—34. (²⁰⁰).

* *nigriceps* Loew, Centur. VII, 71. — Virginia (Lw.); Massachusetts.

Myopa.

Fabricius, System. Ent. p. 798; 1775.

americana Wiedemann, Auss. Zw. II, 242, 3 (*Zodion*). — Montevideo (Wied.); North America (Walker, List, etc. III, 678).

apicalis Walker, List, etc. III, 679. — North America

bistria Walker, List, etc. III, 679. — North America.

* *clausa* Loew, Centur. VII, 72. — Maine.

fulvifrons Say, J. Acad. N. Sc. Phil. III, 83; Compl. Wr. II, 74 (*Zodion*); Wiedemann, Auss. Zw. II, 241, 1 (*id.*) — Pennsylvania, Maryland (Say).

Myopa rubrifrons Rob. Desovidy, Ess. Myod. 247, 17 [Walker, List, etc. III, 678].

longicornis Say, Journ. Acad. N. Sc. Phil. III, 81, 2; Compl. Wr. II, 72; Wiedemann, Auss. Zw. II, 245, 4. — Missouri.

obliquefasciata Macquart, Dipt. Exot. 1^{er} Suppl. 141, 1. — Texas.

vesiculosa Say, J. Acad. N. Sc. Phil. III, 80, 1; Compl. Wr. II, 72; Wiedemann, Auss. Zw. II, 245, 3. — Pennsylvania (Say); Massachusetts (Harris, Catal.).

vicaria Walker, List, etc. III, p. 679. — Nova Scotia.

conjuncta Thomson, Eugen. Resa, Dipt. 515. — California.

Observation. For *Myopa biannulata* Say, see *Stylogaster stylatus*. For *Myopa nigripennis* Gray, see *Pyrgota undata*.

FAMILY PIPUNCULIDAE.

Pipunculus.

Latreille, Hist. Nat. des Crust. et des Ins.; 1804. ⁽²⁶¹⁾.

- * *cingulatus* Loew, Centur. VI, 73. — Distr. Columbia.
- * *fasciatus* Loew, Centur. X, 59. — Texas.
- * *fuscus* Loew, Centur. VI, 71. — Maryland.
- lateralis* Walker, Dipt. Saund., 216. — North America.
- * *nigripes* Loew, Centur. VI, 75. — Pennsylvania.
- * *nitidiventris* Loew, Centur. VI, 72. — Distr. Columbia.
- reipublicae* Walker, List, etc. III, 639. — New York.
- * *subopacus* Loew, Centur. VI, 74. — Distr. Columbia.
- * *subvirescens* Loew, Centur. X, 58. — Texas.
- translatus* Walker, Trans. Ent. Soc. N. Ser. IV, 150. — United States.

FAMILY PLATYPEZIDAE.

Callomyia.

Meigen, Klassifikation etc., 1, 2, 311; 1804.

- * *divergens* Loew, Centur. VI, 77. — Pennsylvania.
- * *notata* Loew, Centur. VI, 77. — Pennsylvania.
- * *talpula* Loew, Centur. IX, 81. — New Hampshire.
- * *tenera* Loew, Centur. IX, 82. — New York.

Platypeza.

Meigen, in Illiger's Magaz. II, 272; 1803.

- * *anthrax* Loew, Centur. IX, 83. — New York.
- * *flavicornis* Loew, Centur. VI, 79. — Pennsylvania.
- * *obscura* Loew, Centur. VI, 80. — Pennsylvania.
- * *pallipes* Loew, Centur. VI, 81. — Distr. Columbia.
- * *velutina* Loew, Centur. VI, 79. — Pennsylvania.

Platynema.

Zetterstedt, Dipt. Scand. I, 332; 1842.

- * *imperfecta* Loew, Centur. VI, 82. — Distr. Columbia.

FAMILY OESTRIDAE. ⁽²⁶²⁾.**Gastrophilus.**

Leach, on the gen. and sp. of Eprob. ins. etc. 1817; *Gastrus* Meigen.

- * *equi* Fabricius, Meigen, Latreille, B. Clark etc. A. Fitch, Survey of Washington Co., N. Y. (in Trans. N. Y. Agric. Soc. Vol. IX, 799; *Oestrus*); Harris, Ins. of N. Engl. 3^d edit. 623; Tab. VIII, f. 2; Brauer, Oestriden, 68; Tab. I, f. 1; Tab. V, f. 1; Tab. VII, f. 1 — 3 (larva). — Europe and North America; on horses.

- haemorrhoidalis** Linné, Fabricius, Meigen, Clark etc. Harris, Ins. of N. Engl. 623. Brauer, Oestrident, 83; Tab. I, f. 5; Tab. VII, f. 4 (larva). — Europe and North America; on horses.
- ***nasalis** Linné, Meigen, etc. Brauer, l. c. 86; Tab. I, f. 7; Tab. VII, f. 6 (larva). — Europe and North America; on horses (I have seen specimens from New York, Utah and Kansas).
- Gastus veterinus* Clark, Fabricius, Fallen; Green, Natur. Hist. of the horse-bee in Adams's medical and agricultural register, Vol. I, 53; New England Farmer, Vol. IV, 345; Harris Ins. N. Engl. 3^d edit. 623.
- Oestrus subjacens* Walker, List, etc. III, 687. — Nova Scotia [Brauer suggests this synonymy, which I can confirm, after having seen the specimens in the Brit. Mus.].
- pecorum** Fabricius, Fallen, Meigen, etc. Walker, List, etc. III, 686; Brauer, Oestrident, 75; Tab. I, f. 4; Tab. VII, f. 5 and 7 (larva). — Europe, and according to Walker, Jamaica.

Hypoderma.

Clark, Essay on bots etc.; 1815.

- bonassi** Brauer, Verh. Zool. Bot. Ges., 1875, 75 (the larva alone is described). — On the buffalo.
- ***bovis** De Geer, Fabricius, etc., Brauer, Oestrident, 125; Tab. II, f. 2; Tab. V, f. 4; Tab. VIII, f. 1^a and 7; Fitch, Survey, etc. 799; Harris, Ins. N. Engl. 3^d edit. 624. — Europe and North America (on oxen).
- ***lineata** Villers, Olivier, etc. Brauer, Oestrident, 122; Tab. II, f. 3; Tab. V, f. 8 (larva). — Europe and North America (specimens from Kentucky in the Vienna Museum; from Texas in M. C. Z.). On sheep or oxen (?).
- Oestrus supplens* Walker, List, etc. III, 635; Brauer, Oestrident, 129 [merely a translation of Walker's description. Brauer suggests that this may be *H. lineata*; the specimens I saw in the Brit. Museum are either *lineata* or *bovis*]. — Nova Scotia.

Oedemagena.

Latreille, Fam. Natur.; 1825.

- tarandi** Linné, Fabricius, Meigen, etc. — Brauer, Oestrident, 131. — On the reindeer; Europe and North America (the latter according to Palisot in Macquart, Dipt. Exot. II, 3, 25; according to Brauer the Vienna Museum possesses an american specimen).

Oestrus.

Linné, Fauna Suecica. 1761.

- ***ovis** Linné, Fabricius, Meigen, etc. Brauer, Oestrident, 151; Tab. III, f. 1; Tab. VI, f. 1; Tab. VII, f. 10 (larva); A. Fitch, Survey of Washington, Co. (l. c. 799). — Europe and North America; on sheep

Cephenomyia.

Cephenomyia Latreille, Fam. Natur.; 1825; amended by Brauer.

Ulrichii Brauer, Oestrident, 199; Tab. III. f. 8; Tab. IX, f. 7 (larva). — Europe (on *Cervus Alces*); North America (only larvae were seen by Brauer from this part of the world).

phobifer Clark, Essay etc., 69; Tab. II, f. 30 (*Oestrus*); Brauer, Oestrident, 213 and also 291; Tab. V, f. 11 (Referred to the genus with a doubt, as this author never saw the insect). — Georgia.

Observation. A larva of this genus found in the throat of *Cervus macrotis* Say in the North Western territories, is described by Brauer, l. c. 211 and figured on his Tab. IX, f. 9. The fly from it is not yet known.

Cuterebra.

Clark, Essay on the Bots; 1815; *Trypoderma* Wiedemann, Loew.

americana Fabricius, System. Ent. 774, 6; Ent. System. IV, 315, 14; System. Antl. 288, 21 (*Musca*); Wiedemann, Auss. Zw. II, 258, 3 (*Trypoderma*); Macquart, Dipt. Exot. II, 3, 23, 5; Brauer, Oestrident, 242; Tab. IV, f. 2; Tab. VI, f. 7 (head). — United States and Mexico.

Cuterebra cauterium Clark, Essay on Bots 70; Tab. II, f. 3 (Brauer).

approximata Walker, in Lord's Naturalist etc. II, 338. — Vancouver's Isl.

***buccata** Fabricius, Mant. Ins. 305, 1; Ent. System. IV, 230, 1; System. Antl. 227, 1 (*Oestrus*); Wiedemann, Auss. Zw. II, 259, 4 (*Trypoderma*); Olivier, Encycl. Méth. VIII, 464; Macquart, Hist. Nat. Dipt. II, 47, 2; Brauer, Oestrident, 429; Tab. IV, f. 4; Tab. VI, f. 9 (head). — Kentucky, Pennsylvania, Carolina (Fabr.); Massachusetts (Harris).

Cuterebra puricora Clark, Essay on Bots, etc. 70, 4; Tab. II, f. 29. [Wied.].

cuniculi Clark, Trans. Lin. Soc. III, 299; Essay on Bots 70, 1; Tab. II, f. 26; Fabr., Syst. Antl. 230, 9 (*Oestrus*); Wiedemann, Auss. Zw. II, 256, 1 (*Trypoderma*); Olivier, Encycl. Méth. VIII, 464, 2; Macquart, Hist. Nat. Dipt. II, 47, 1; Tab. XIII, f. 17; Brauer, Oestrident, 240. — Georgia, Massachusetts (Brauer, l. c. doubts the specific distinctness of this species from *C. horripilum*).

emasculator Fitch, Reports, Vol. II, Nr. 210; Brauer, Oestrident, 232 (Translation of Dr. Fitch's account, with remarks). — North America; on *Tamias striatus*.

fontinella Clark, Trans. Lin. Soc. XV, 410; Joly, Réch. sur les Oestrident, 289. Brauer, Oestrident, 242 reproduces Clark's description. — Illinois.

***horripilum** Clark, Essay etc., 70; Tab. II, f. 27; Brauer, Oestrident, 235; Tab. IV, f. 6; Tab. VI, f. 11 (head); Wiedemann, Auss. Zw. II, 237 (*Trypoderma*). — New York, Georgia, Nova Scotia.

**scutellaris* Loew, Brauer, Oestrident, 230; Tab. IV, f. 3; Tab. 6, f. 10 (head). — North America (according to Brauer probably synonymous with *C. emasculator*).

analis Macquart, Dipt. Exot. II, 3, 22; Tab. II, f. 5; Joly, Rech. 278 (Fig.); Brauer, Oestrident, 237; Tab. IV, f. 1, 1^a; Tab. VI, f. 8 (head). — Brazil and Mexico.

apicalis Guérin, Iconogr. etc. 547; Tab. 101, f. 1. — America (according to Brauer l. c. 240, probably the male of the preceding species).

atrox Clark, Essay etc. Addenda; Brauer, Oestrident, 241. — Mexico.

terrisona Walker, List, etc. III, 685. — Brauer, Oestrident, 244. — Guatemala. (Brauer, who merely translates Walker's description, holds this to be the same as *C. americana*.)

Dermatobia.

Brauer, Verh. Zool. Bot. Ges ; 1860.

The so — called *Oestrus hominis* of Central and South America belongs here. The description of all the known larvae, as well as of the known imagos are collected in Brauer, Oestrident, 251 — 269; Tab. X. All the references will be found there. Here I will quote only Say, „On the South Amer. species of *Oestrus*, which inhabits the human body“, in the Journ. Acad. N. Sci. Phil. II, 354, 1822; Compl. Wr. II, 32.

FAMILY TACHINIDAE.⁽²⁶³⁾

SECTION I. PHASINA.

Phasia.

Latreille, Hist. Nat. des Crust. et des Ins. XIV, 379; 1804.

atripennis Say, J. Acad. Phil. VI, 172, 1; Compl. Wr. II, 363. — Indiana.

Myalomyia.

Rob. Desvoidy, Myod. 298; 1830.

occidentis Walker, Dipt. Saund, 260. — United States.

**triangulifera* Loew, Centur. IV, 85. — New York.

Trichopoda.

Latreille, in Cuvier's Règne animal Vol. V; 1829.

ciliata Fabricius, System. Antl. 315, 9 (*Ocyptera*); Wiedemann, Auss. Zw. II, 273, 8; Macquart, Dipt. Exot. II, 3, 77, 2; Tab. IX, f. 1. — South America (Fabr., Wied.). — Carolina (Macq.).

cilipes Wiedemann, Auss. Zw. II, 276, 11. — Carolina.

Therica pennipes Fabricius, System. Antl. 219, 8 (change of name by Wiedemann.)

flavicornis R. Desvoidy, Myod. 284. — Carolina.

- ***formosa** Wiedemann, Auss. Zw. II, 268, 1; Macquart, Hist. Nat. Dipt. II, 194, 1; Tab. XV, f. 8. — Georgia.
hirtipes Fabricius, System. Antl. 219, 9 (*Thereva*); R. Desvoidy, Myod. 284; Wiedemann, Auss. Zw. II, 276, 12. — Carolina.
 ***lanipes** Fabricius, System. Antl. 220, 10 (*Thereva*); Wiedemann, Auss. Zw. II, 270, 4; R. Desvoidy, Myod., 284, 5. — Georgia.
 ***pennipes** Fabricius, Ent. Syst. IV, 348, 149 (*Musca*); System. Antl. 327, 5 (*Dictya*); Wiedemann, Auss. Zw. II, 274, 9; R. Desvoidy, Myod., 283, 1. — Atlantic States.
Phasia jugatoria Say, J. Acad. Phil. VI, 172, 2; Compl. Wr. II, 364.
plumipes Fabricius, System. Antl. 220, 11 (*Thereva*); Wiedemann, Auss. Zw. II, 277, 13; R. Desvoidy, Myod. 285, 6. — Carolina.
 ***pyrrhogaster** Wiedemann, Auss. Zw. II, 271. — Cuba; Texas (Loew *in litt.*).
 ***radiata** Loew, Centur. IV, 89. — Distr. Columbia.
 ***trifasciata** Loew, Centur. IV, 90. — Connecticut.
haitensis R. Desvoidy, Myod. 285. — San Domingo.
mexicana Macquart, Dipt. Exot. 1er Suppl. 172, 3 — Mexico.
negricauda Bigot, Ann. Soc. Ent. Fr. 1876, 394. — Mexico.

Himantostoma.

Loew, Centur. IV, 87; 1863.

- ***sugens** Loew, Centur. IV, 87. — Illinois.

Xysta.

Meigen, System. Besch. IV, 181; 1824.

- ***didyma** Loew, Centur. IV, 86. — Illinois.

SECTION II. GYMNOSOMINA.

Gymnosoma.

Meigen, in Illiger's Magaz. II, 1803.

- ***filiola** Loew, Centur. X, 66. — Texas.
fuliginosa R. Desvoidy, Myod. 237. — Carolina.
occidua Walker, List, etc. IV, 692. — Nova Scotia.
 ***par** Walker, List, etc. IV, 692. — Nova Scotia.

Cistogaster.

Latreille, in Cuvier's Regne animal. Vol. V; 1829.

- ***divisa** Loew, Centur. IV, 88. — Connecticut.
immaculata Macquart, Dipt. Exot. II, 3, 76; Tab. VIII, f. 7. — Carolina.

SECTION III. OCYPTERINA.

Ocyptera. ⁽²⁶⁴⁾.

Latreille, Hist. Nat. des Crust. et des Ins. XIV, 378; 1804.

- arcuata** Say, J. Acad. Phil. VI, 173; Compl. Wr. II 363. — Indiana.
 [Not an *Ocyptera*, Loew *in litt.*]

aurata R. Desvoidy, Myod. 226 (*Hemysda*). — Philadelphia. [Not an *Ocyptera*, Loew *in litt.*].

carolinæ R. Desvoidy, Myod. 232 (*Parthenia*); Macquart, Dipt. Exot. II, 3, 75. — Carolina.

Dosiades Walker, List, etc. IV, 695. — Nova Scotia.

Epytus Walker, List, etc. IV, 694. — Georgia.

Euchenor Walker, List, etc. IV, 696. — Massachusetts; Newfoundland.

liturata Olivier, Encycl. Méthod. VIII, 423, 1. — Carolina.

Dotadas Walker, List, etc. IV, 694. — Jamaica.

Ervia.

Rob. Desvoidy, Myod. 225, 1830; Macquart, Dipt. Exot. II, 3, 74.

triquetra Olivier, Encycl. Méthod. VIII, 423, 2 (*Ocyptera*); Rob. Desvoidy, Myod. 225. — Carolina.

Lophosia.

Meigen, System. Besch. IV, 216; 1824.

setigera Thomson, Eugen. Resa, etc. 527. — California.

SECTION IV. PHANINA.

Wahlbergia. (*)

Zetterstedt, Dipt. Scand. I; 1842.

* **brevipennis** Loew, Centur. IV, 91. — Nebraska.

SECTION V. TACHININA.

Dejeania.

Rob. Desvoidy, Myod. 33, 1830; Macquart, Dipt. Exot. II, 3, 32; 1843.

* **corpulenta** Wiedemann, Auss. Zw. II, 280 (*Tachina*); Schiner, Novara etc. 337 (I suspect that Macquart's *D. corpulenta* in Hist. Nat. Dipt. II, 77, 22; Dipt. Exot. II, 3, 35, 4; 1^{er} Suppl. 143; Tab. XII, f. 2, is some other species). — Mexico (Wied.); South America (Schiner); Rocky Mts., in Colorado (O. Sacken). ⁽²⁶⁵⁾

Dejeania rufipalpis Macquart, Dipt. Exot. II, 3, 35, 5; Tab. III, f. 1. — Mexico.

Dejeania vexatrix O. Sacken, Western Dipt., 343.

* **rutilioides** Jaenicke, Neue Exot. Dipt. 137. — Mexico (Jaenn.); San Diego, Cal.; Manitou, Colorado (O. S., Western Dipt.). ⁽²⁶⁶⁾

analis Macquart, Dipt. Exot. II, 3, 34, 3; Tab. III, f. 3; Bigot, in R. de la Sagra etc. 809 (*Echinomyia*). — Mexico (Macq.); Cuba (Bigot).

*) Schiner (Fauna Austr. Dipt. I, p. 419) revives the older name *Besseria* R. Desvoidy; but as R. Desvoidy himself, in his later work, *Diptères des envir. de Paris* ignores *Besseria* and adopts *Wahlbergia*, we may do the same here.

armata Wiedemann, Auss. Zw. II, 287, 11 (*Tachina*); Macquart, Dipt. Exot. 4^e Suppl. 168; Tab. XV, f. 7. — Cuba; Brazil (Macquart and Schiner, Novara etc. 337).

Mystricia.

Macquart, Dipt. Exot. II, 3, 43; 1843; compare also Schiner, Dipt. of the Novara etc. 331, foot-note.

* **vivida** Harris, Ins. New Engl. 3^d Edit., 612; Tab. VIII, f. 1 (*Tachina*). — United States, common. ⁽²⁶⁷⁾.

Mystricia testacea Macquart, Dipt. Exot. II, 3, 44; Tab. IV, f. 4. — North America and Mexico.

Tachina finitima Walker, List, etc. IV, 70. — Nova Scotia (!).

(?) *Tachina abrupta* Wiedemann, Auss. Zw. II, 293, 22. — North America.

ambigua Macquart, Dipt. Exot. 4^e Suppl. 172, 9. — Mexico.

amoena Macquart, Dipt. Exot. II, 3, 44, 2. — Mexico.

Mystrisiphona.

Bigot, Rev. et Mag. de Zool. 1859, 309.

niger Bigot, l. c. — Mexico.

Jurinia.

R. Desvoidy, Myod. 34; 1830.

Macquart, Dipt. Exot. II, 3, 37.

* **algens** Wiedemann, Auss. Zw. II, 285, 8 (*Tachina*). — North America (Wied.); New England and British possessions, common; also farther South.

amethystina Macquart, Dipt. Exot. II, 3, 42, 9; Tab. III, f. 7, and 1^{er} Suppl. 147. — Georgia, Venezuela.

apicifera Walker, List, etc. IV, 718. — North America.

aterrima R. Desvoidy, Myod. 36. — United States.

Boscii R. Desvoidy, Myod. 36. — United States.

candens Walker, List, etc. IV, 720. — Nova Scotia.

decisa Walker, List, etc. IV, 715. — Huds. B. Terr.; Nova Scotia.

georgica Macquart, Hist. Nat. Dipt. II, 79, 31. — Georgia.

fuscipennis Jaennicke, Neue Exot. Dipt. 83. — North America.

* **hystrix** Fabricius, System. Ent. 777, 21 (*Musca*); Ent. System. IV, 325, 55 (*id.*); System. Antl. 310, 8 (*Tachina*); Olivier, Encycl. Méthod. VIII, 22, 59 (*Musca*); Wiedemann, Auss. Zw. II, 283, 6; Macquart, Hist. Nat. Dipt. II, 79, 30 (*Echinomyia*). — America (Fabr.); Kentucky (Wied.).

Jurinia metallica R. Desvoidy, Myod. 35.

Musca pilosa Drury, Ins. I; Tab. XLV, f. 7 [Wied.].

leucostoma R. Desvoidy, Myod. 37. — North America.

virginiensis Macquart, Dipt. Exot. 4^e Suppl. 171, 16. — Virginia.

echinata Thomson, Eugen. Resa, 516. — California.

- analis** Macquart, Dipt. Exot. II, 3, 39, 1; Tab. III, f. 8. — Brazil, Mexico.
apicalis Jaennicke, Neue Exot. Dipt. 82. — Mexico.
basalis Walker, List, etc. IV, 713. — Jamaica.
contraria Walker, List, etc. IV, 716. — Mexico.
debitrix Walker, Trans. Ent. Soc. N. Ser. V, 296. — Mexico.
epileuca Walker, List, etc. IV, 716. — Jamaica.
flavifrons Jaennicke, Neue Exot. Dipt. 82. — Mexico.
innovata Walker, Trans. Ent. Soc. N. Ser. V, 296. — Mexico.
lateralis Macquart, Dipt. Exot. II, 3, 42, 8; Tab. III, f. 10. — Mexico.

Echinomyia.

Dumeril, Exposit. d'une Méthode Natur. etc. 1798.

- aenea** Zetterstedt, Dipt. Scand. VIII, 3217; Gerstaecker, Die 2^{te} deutsche Nordfahrt etc. — East Greenland.
Anaxia Walker, List, etc. IV, 726. — Nova Scotia.
florum Walker, List, etc. IV, 722 (*Fabricia*). — Huds. B. Terr., Nova Scotia.
haemorrhoea v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 145; Tab. IV, f. 13—16. — Wisconsin.
iterans Walker, List, etc. IV, 727. — Nova Scotia.
Leschenaldi R. Desvoidy, Myod. 42 (*Peltaria*). — North America.
Lapilaei R. Desvoidy, Myod. 44; id. Dipt. des env. de Paris I, 642. — Newfoundland.
picea R. Desvoidy, Myod. 44; id. Dipt. des env. de Paris I, 642; Macquart, Dipt. Exot. II, 3, 37, 2; Tab. III, f. 4. — Nova Scotia.
punctifera Walker, List, etc. IV, 723. — Massachusetts.
californiae Walker, Dipt. Saund., 270 (*Fabricia*). — California.
filipalpis Thomson, Eugen. Resa., 517. — California.
basifulva Walker, List, etc. IV, 725. — Jamaica.

Cyphocera.

- Cyphocera*, Macquart Ann. Soc. Ent. de France II, 3, 267; 1845; amended in *Cyphocera* by Rondani and Loew.
ruficauda v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 146; Tab. IV, f. 17—20 (*Schineria*); Loew, in Zeitschr. f. Ges. Naturw. XXXVI, 114, refers the species to the present genus. — Wisconsin.

Gymnochaeta.

Rob. Desvoidy, Myod. 371; 1830.

- ***alcedo** Loew, Centur. VIII, 61. — United States.

Micropalpus.

Macquart, Hist. Nat. Dipt. II, 80; 1835.

- distinctus** R. Desvoidy, Myod. 54 (*Linnemyia*). — Philadelphia.

piceus Macquart, Hist. Nat. Dipt. II, 84, 11. — Carolina.

Marshamia analis Rob. Desvoidy, Myod. 58 [Macq.].

californiensis Macquart, Dipt. Exot. 4^e Suppl. 175, 18. — California.

albomaculatus Jaennicke, Neue Exot. Dipt. 80. — Mexico.

flavitaris Macquart, Dipt. Exot. II, 3, 47, 4; Tab. V, f. 1; 1^{er} Suppl. 152, 11; Tab. XIII, f. 13; 3^e Suppl. 45; Schiner, Dipt. of the Novara etc. 334 (*Saundersia*). — Mexico (Macq.); South America (Schiner). (²⁶⁸).

ornatus Macquart, Dipt. Exot. II, 3, 47, 5; Tab. IV, f. 6; Schiner, Dipt. of the Novara etc. 333 (*Saundersia*). — Mexico; Columbia (S. America).

rufipes Jaennicke, Neue Exot. Dipt. 79. — Panama.

Gonia.

Meigen, in Illiger's Magaz. II; 1803.

albifrons Walker, List, etc. IV, 79². — Huds. B. Terr.

auriceps Meigen, System. Besch. V, 5, 7. — Europe and Georgia, North America (Walker, List, etc. IV, 798).

***frontosa** Say, J. Acad. Phil. VI, 175; Compl. Wr. II, 365. — Upper Missouri (Say).

philadelphica Macquart, Dipt. Exot. II, 3, 51, 6 — Philadelphia.

angusta Macquart, Dipt. Exot. II, 3, 51, 7; Tab. V, f. 5. — Locality unknown (Macq.); Jamaica (Walker, List, etc. IV, 798).

crassicornis Fabricius, System. Antl. 301, 84 (*Musca*); Wiedemann, Auss. Zw. II, 345, 4. — West Indies.

chilensis Macquart, Dipt. Exot. II, 3, 50, 5; Tab. V, f. 4; Bigot, in R. de la Sagra etc. 809. — Cuba; Chili (Macquart says that this species differs from the european *G. capitata* only in the absence of black at the end of the abdomen).

Nemoraea.

R. Desvoidy, Myod. 71; 1830.

Schiner, Fauna Austr. I, 447. (²⁶⁹).

Clesides Walker, List, etc. IV, 757. — North America.

***leucaniae** Kirkpatrick, Ohio Agric. Report for 1860, 358 (*Exorista*);

Riley, 2^d Rep. 51, f. 17 (*id.*). — Parasite of *Leucania unipuncta*.

Exorista Osten Sackenii, Kirkpatrick, l. c., according to Riley l. c., only a variety of the former.

Scnomctopia militaris Walsh, Insects injurious to Vegetation in Illinois (Pamphlet containing a detailed description of this fly, with a figure. It is dated Sept. 1861. The description is reproduced by Packard, Entom. Report on the army-worm and grain-aphis, in the Scientif. Survey of the State of Maine 1861); Amer. Entom. II, 101. Occurs in the West, as well as in the Eastern States, according to Packard.

Masurius Walker, List, etc. IV, 753 (*Erigone*). — North America.

Pyste Walker, List, etc. IV, 754 (*Erigone*). — Nova Scotia.

trixoides Walker, List, etc. IV, 760. — Georgia.

intrita Walker, Trans. Ent. Soc. N. Ser. V, 297. — Mexico.

Exorista.

Meigen, in Illiger's Magaz. II; 1803. (²⁷⁰).

Areos Walker, List, etc. IV, 766 (*Lydella*). — North America.

cecropiae Riley 4th Rep. 108. Also Amer. Ent. II, 101. — On *Attacus Cecropia*.

doryphorae Riley, Amer. Ent. I, 46, f. 35; the same, First Rep. 111, f. 48 (*Lydella*); parasite on *Doryphora decemlineata*.

Epicydes Walker, List, etc. IV, 785 (*Aplomyia*). — Huds. B. Terr.

flavicauda Riley, 2^d Rep. 51 (f. 18). — Missouri.

Hybreas Walker, List, etc. IV, 785 (*Aplomyia*). — Huds. B. Terr.

irrequieta Walker, List, etc. IV, 789 (*Aplomyia*). — Nova Scotia.

Mella Walker, List, etc. IV, 767 (*Lydella*). — Nova Scotia.

Panaetius Walker, List, etc. IV, 767 (*Lydella*). — Nova Scotia.

Pausa Walker, List, etc. IV, 787 (*Aplomyia*). — Nova Scotia.

phycitae Le Baron, 2^d Rep. 123 (parasite of caterpillar of *Phycita*

nebulo in Illinois). — Also Riley, 4th Rep. 40.

violenta Walker, List, etc. IV, 788 (*Aplomyia*). — Nova Scotia.

cessatrix Walker, Trans. Ent. Soc. N. Ser. V, 305 (*Lydella*). — Mexico.

? **indita** Walker, l. c. 306 (*Lydella*). — Mexico.

lepida R. Desvoidy, Myod. 153 (*Zenillia*). — Cuba.

rubrella R. Desvoidy, Myod. 179 (*Carcellia*). — San Domingo.

Tachina. (*)

Meigen, in Illiger's Magaz. II; 1803.

addita Walker, Dipt. Saund., 290. — United States.

albifrons Walker, Dipt. Saund., 283. — United States.

Ampelus Walker, List, etc. IV, 732. — Nova Scotia.

ancilla Walker, Dipt. Saund., 299. — United States.

antennata Walker, Dipt. Saund., 298. — United States.

atra Walker, Dipt. Saund., 273. — Georgia.

convecta Walker, Dipt. Saund., 277. — United States.

degenera Walker, List, etc. IV, 733. — Huds. B. Terr.

disjuncta Wiedemann, Anal. Ent. 45, 88; Auss. Zw. II, 295, 24. — North America.

Dydas Walker, List, etc. IV, 748. — Huds. B. Terr.

exul Walker, Dipt. Saund., 277. — United States.

hirta Curtis, Ins. Ross's Exp. LXXIX. — Arctic America.

insolita Walker, Dipt. Saund., 277; Tab. VII, f. 2. — United States.

interrupta Walker, Dipt. Saund., 295. — Georgia.

*) This is not *Tachina* in Schiner's sense, but a congeries of species published by authors under that head, and which could not be disposed of elsewhere.

- Melobosis** Walker, List, etc. IV, 743. — Florida.
obconica Walker, Dipt. Saund., 296. — United States.
signifera Walker, List, etc. IV, 708. — Nova Scotia.
speculifera Walker, l. c. 731. — North America.
unifasciata R. Desvoidy, Myod. 105 (*Latreillia*). — Philadelphia.
albincisa Wiedemann, Auss. Zw. II, 334, 98. — St. Thomas.
breviventris Wiedemann l. c. II, 297, 28. — Brazil (Wied.); Jamaica (Walker, List, etc. IV, 712).
crudelis Wiedemann, l. c. II, 300, 35. — West Indies.
cubaecola Jaenicke, Neue Exot. Dipt. 74; Tab. II, f. 6. — Cuba.
distincta Wiedemann, Anal. Ent. 45; Auss. Zw. II, 334, 99. — West Indies. [According to Macquart, Dipt. Exot. II, 3, 59, this is a *Masicera*.]
elegans Bigot, in R. de la Sagra etc. 810; Tab. 20, f. 7. — Cuba.
hirta Drury, Ins. 109; Tab. XLV, f. 4 (*Musca*). — Jamaica.
occidentalis Wiedemann, Auss. Zw. II, 335. — St. Thomas. [Also referred to *Masicera* by Macquart, Dipt. Exot. II, 3, 59.]
potens Wiedemann, Auss. Zw. II, 312; Bigot, in R. de la Sagra etc. 810. — Brazil (Wied.); Cuba (Bigot) [Macquart, Dipt. Exot. II, 3, 58, refers this species to *Eurygaster*.]
pusilla Wiedemann, Auss. Zw. II, 337, 104. — West Indies.
saltatrix Wiedemann, l. c. 300, 36. — West Indies.
trivittata Wiedemann, Auss. Zw. II, 300, 34. — West Indies.
subvaria Walker, Dipt. Saund., 299. — West Indies.

Observation. *Tachina anonyma* (*Masicera*?) Riley, 4th Rep. 129, 5th Rep. 133 and 7th Rep. 178 has never been described. It was bred from different moths, and also from the migratory Grasshopper *Caloptenus sprctus*.

Masicera.

Macquart, Hist. Nat. Dipt. II, 118; 1835.

- archippivora** Riley, 3^d Rep. 150. — Missouri (parasitic on *Danaus archippus* and other caterpillars).
cubensis Macquart, Dipt. Exot. 3^e Suppl. 46, 13; Tab. V, f. 5; Bigot, in R. de la Sagra etc. 813. — Cuba.
expurgata Walker, Trans. Ent. Soc. N. Ser. V, 304. — Mexico.
disputans Walker, Trans. Ent. Soc. N. Ser. V, 303. — Mexico.
gentica Walker, Trans. Ent. Soc. N. Ser. V, 302. — Mexico.
necopina Walker, Trans. Ent. Soc. N. Ser. 303. — Mexico.

Observation. Macquart, Dipt. Exot. II, 3, 59 refers *Tachina distincta* Wied. and *T. occidentalis* Wied., both from the West Indies, to the genus *Masicera*; they will be found among the *Tachinae*.

Phorocera.

R. Desvoidy, Myod. 131; 1830.

Schiner, Fauna Austr. I, 438.

- Demivus** Walker, List, etc. IV 779. — North America (?).

prisca Walker, List, etc. IV, 780. — Nova Scotia.

Theutis Walker, List, etc. IV, 778. — Nova Scotia.

claripennis Macquart, Dipt. Exot. 3^e Suppl. 49, 10; Tab. V, f. 8. — North America.

botyvora R. Desvoidy, Myod. 138. — Cuba (bred from the chrysalis of a *Botys*).

Baumhaueria.

Meigen, System. Besch. VII, 251; 1838.

analys v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 148; Tab. IV, f. 21—23. — Wisconsin.

Belvoisia.

R. Desvoidy, Myod. 103; 1830.

* *bifasciata* Fabricius, System. Ent. 777, 19 (*Musca*); Ent. System. IV, 325, 53 (*id.*); System. Antl. 299, 78 (*id.*); Latreille, Dict. d'Hist. Nat. XXIV, 195, 373 (*Ocyptera*); Wiedemann, Auss. Zw. II, 305, 44 (*Tachina*); R. Desvoidy, Myod. 104 (*Latreillia* ♂); R. Desvoidy, Dipt. des environs de Paris I, 563 (*Lalage*); Macquart, Hist. Nat. Dipt. II, 104, 19 (*Nemoraea* ♂); Dipt. Exot. II, 3, 57; Tab. VI, f. 2; Bigot in R. de la Sagra etc. 813 (*Nemoraea*); Riley, Fifth Report 140, with figure). — North and South America. (²⁷¹).

Belvoisia bicincta R. Desvoidy, Myod. 103, ♀.

Senometopia bicincta Macquart, Hist. Nat. Dipt. II, 112.

Metopia.

Meigen, Illiger's Magaz. II; 1803. (*)

Schiner, Fauna Austr. I, 498. (²⁷²).

grisea R. Desvoidy, Myod. 131 (*Araba*). — North America.

Xychus Walker, List, etc. 770 IV, (*Ophelia*). — Jamaica.

Senotainia.

Macquart, Dipt. Exot. 1^{er} Suppl. 167; 1846.

rubriventris Macquart, l. c. 167; Tab. XX, f. 8. — Galveston, Texas.

Miltogramma.

Meigen, Illiger's Magaz. II; 1803.

trifasciata Say, J. Acad. Phil. VI, 174; Compl. Wr. II, 363. — Indiana.

erythroceræ Thomson, Eugen. Resa etc. 523. — California.

biseta Thomson, Eugen. Resa etc. 524. — Panama.

*) Agassiz, Index universalis, erroneously has 1878

Blepharopeza.

Blepharipeza Macquart, Dipt. Exot. II, 3, 54, 1843; amended by Loew, Centur. X, 67.

bicolor Macquart, Dipt. Exot. 1^{er} Suppl. 158, 4; Tab. XX, f. 7. — Galveston, Texas.

* *adusta* Loew, Centur. X, 67. — California.

rufipalpis Macquart, Dipt. Exot. II, 3, 55, 1; Tab. VI, f. 1; Bigot, in R. de la Sagra etc. 815. — Cuba, Mexico.

Eurygaster. ^(275a)

Macquart, Dipt. Exot. II, 3, 57; 1843.

septentrionalis Walker, Lord's Natur. in Vancouver's Island, II, 339. — Vancouver's Island.

commentans Walker, Trans. Ent. Soc. N. S. V, 300. — Mexico.

desita Walker, l. c. 299. — Mexico.

fertoria Walker, l. c. 300. — Mexico.

habilis Walker, l. c. 301. — Mexico.

modestus Bigot, R. de la Sagra etc. 812. — Cuba.

obscurus Bigot, l. c. 812. — Cuba.

postica Walker, Trans. Ent. Soc. N. S. V, 301. — Mexico.

saginata Walker, Trans. Soc. N. Ser. V, 298. — Mexico.

Degeeria.

Meigen, System. Besch. VII, 249; 1838.

lateralis Macquart, Dipt. Exot. 3^e Suppl. 48, 2; Tab. V, f. 6. — North America.

Clytia.

R. Desvoidy, Myod. 287; 1830.

atra R. Desvoidy, Myod. 288, 2. — Carolina.

Scopolia.

R. Desvoidy, Myod. 268; 1830.

lateralis Macquart, Dipt. Exot. II, 3, 71; Tab. VIII, f. 3. — North America.

nigra Bigot, in R. de la Sagra etc. 814; Tab. XX, f. 8. — Cuba.

Euthera.

Loew, Centur. VII, 85; 1866.

* *tentatrix* Loew, Centur. VII, 85. — New York, Texas.

Ptilocera.

Macquart, Hist. Nat. Dipt. II, 169; 1835.

americana Macquart, Hist. Nat. Dipt. II, 173. — Philadelphia.

Observation. This genus, now abandoned, seems to have principally contained Tachinina, approaching the *D. xina* in their appearance. Schiner places the European species under the head of *Phyto* Rob. Desvoidy.

FAMILY DENIDAE.

Prosenia.

St. Fargeau et Serville, Encycl. Méthod. X, 500; 1825.

* *mexicana* Macquart, Dipt. Exot. 4^e Suppl. 231; Tab. XXI, f. 12. — Mexico.

Dexia.

Meigen, System. Besch. V, 33; 1826.

abdominalis R. Desvoidy, Myod. 306, 2 (*Estheria*). — Nova Scotia.
Abzoe Walker, List, etc. IV, 846. — Georgia.

albifrons Walker, Dipt. Saund., 317. — United States.

analis Say, J. Acad. Phil. VI, 177, 2; Compl. Wr. II, 366. — Indiana.

analis R. Desvoidy, Myod. 315, 3 (*Zelia*). — Carolina.

apicalis R. Desvoidy, Myod. 316, 4 (*Zelia*). — Carolina.

canescens Walker, Dipt. Saund., 310. — United States.

cerata Walker, List, etc. IV, 847. — North America.

Cremides Walker, List, etc. IV, 842. — North America.

dives Wiedemann, Auss. Zw. II, 377, 15. — Kentucky.

Halone Walker, List, etc. IV, 837. — Georgia.

Harpasa Walker, List, etc. IV, 840. — North America.

melanocera R. Desvoidy, Myod. 312, 2. — Carolina.

Ogoa Walker, List, etc. IV, 841. — Nova Scotia.

pedestris Walker, Dipt. Saund., 313. — United States.

postica Walker, List, etc. IV, 310. — Georgia.

punctata R. Desvoidy, Myod. 308, 3 (*Dinera*). — Philadelphia.

Prexaspes Walker, List, etc. IV, 837 (*Estheria*). — Georgia.

Pristis Walker, List, etc. IV, 841. — Massachusetts.

rostrata R. Desvoidy, Myod. 315, 1 (*Zelia*). — North America.

rufipennis Macquart, Dipt. Exot. II, 3, 87, 3; Tab. X, f. 3. — Nova Scotia.

tibialis R. Desvoidy, Myod. 306, 1 (*Estheria*). — Nova Scotia.

triangularis v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 149; Tab. V, f. 1 5. — Wisconsin.

velox R. Desvoidy, Myod. 316, 5 (*Zelia*). — Carolina.

* *vertebrata* Say, J. Acad. Phil. VI, 176, 1; Compl. Wr. II, 366. — Indiana.

fuscanipennis Macquart, Dipt. Exot. 1^{er} Suppl. 188, 7; Tab. XX, f. 11. — Yucatan.

perfecta Walker, Trans. Ent. Soc. N. S. V, 307. — Mexico

plumosa Wiedemann, Auss. Zw. II, 370; Bigot, in R. de la Sagra etc. 815. — Brazil (Wied.); Cuba (Bigot).

- rubriventris** Macquart, Dipt. Exot. 1^{er} Suppl. 138, 6; Tab XX, f. 10. — Yucatan.
strenua R. Desvoidy, Myod. 315, 2 (*Zelia*). — San Domingo.
Thomae Wiedemann, Auss. Zw. II, 379. — St. Thomas (Wied.); Jamaica (Walker, List, IV, 840).

Sericocera.

Macquart, Hist. Nat. Dipt. II, 165; 1835.

- pictipennis** Macquart, Dipt. Exot. II, 3, 67, 1; Tab. VII, f. 5. — Philadelphia.

Observation. This genus of Macquart's seems to have contained a mixture of heterogeneous forms, which Schiner distributed among the genera *Olivieria*, *Peteina* (Section Tachinina) and *Mintho*, *Thelaira* and *Melania* (Section Dexina). *S. pictipennis* Macquart, judging from the figure, belongs to the Dexidae.

Melanophora.

Meigen, in Illiger's Magaz. II; 1803.

- ? **diabroticae** Shimer, Amer. Naturalist, V, 219; f. 60 (the author calls it *Melanosphora*, perhaps *Melanophora*?). — Illinois (parasitic on *Diabrotica vittata*).
distincta R. Desvoidy, Myod. 273 (*Linnemyia*). — Europe; Philadelphia.
nigripes R. Desvoidy, Myod. 58 (*Marshamia*). — North America.
 * **roralis** Linné etc.; Meigen, System. Besch. IV, 284. — Europe and North America (see Loew, Sillim. Journ. Vol. XXXVII, p. 318).

Illigeria.

R. Desvoidy, Myod. 273; 1830.

- Aelops** Walker, List, etc. IV, 796. — Georgia.
Corythus Walker, List, etc. IV, 797. — Georgia.
Helymus Walker, List, etc. IV, 795. — Maine.

Observation. Judging from the descriptions, the insects, which Mr. Walker places in this genus, have very little in common, and belong to different genera.

Theresia.

R. Desvoidy, Myod. 325; 1830.

- tandree** R. Desvoidy, Myod. 326. — Carolina.

Microphthalma.

Macquart, Dipt. Exot. II, 3, 84; 1843.

- nigra** Macquart, Dipt. Exot. II, 3, 85, 1; Tab. X, f. 2. — North America.

Megaprosopus.

Macquart, Dipt. Exot. II, 3, 83; 1843.

- rufiventris** Macquart, Dipt. Exot. II, 3, 84, 1; Tab. X, f. 1. — Mexico.

FAMILY SARCOPHAGIDAE.

Sarcophaga.

Meigen, System. Besch. V, 14; 1826. (73).

- acerba** Walker, List, etc. IV, 824. — Nova Scotia.
aegra Walker, List, etc. IV, 821. — Massachusetts.
Anaces Walker, List, etc. IV, 833. — North America.
anxia Walker, List, etc. IV, 818. — North America.
argyrocephala Macquart, Dipt. Exot. 1er Suppl. 192, 25. — Galveston, Texas.
aspera Walker, List, etc. IV, 825. — North America (?).
assidua Walker, Dipt. Saund., 328. — United States.
aterrima R. Desvoidy, Myod. 336, 3 (*Peckia*). — Carolina.
avida Walker, List, etc. IV, 822. — Nova Scotia.
basalis Walker, Dipt. Saund., 323. — United States.
comes Walker, Dipt. Saund., 323. — United States.
consobrina R. Desvoidy, Myod. 344, 24 (*Myophora*). — Philadelphia.
derelecta Walker, Dipt. Saund., 322. — United States.
fulvipes Walker, Dipt. Saund., 328. — United States.
Georgina Wiedemann, Auss. Zw. II, 357, 4; Harris, Ins. Injur. to Veget. 3d edit. 613. — Georgia (Wied.); British Possess. (Walker, List, etc. IV, 829); Massachusetts (Harris, Catal.).
importuna Walker, List, etc. IV, 819. — North America (?).
L'herminieri R. Desvoidy, Myod. 339, 5 (*Myophora*). — Carolina.
lanipes R. Desvoidy, Myod. 336, 5. — Carolina.
pallipes Walker, Dipt. Saund., 329. — United States.
querula Walker, List, etc. IV, 821. — North America (?).
rabida Walker, List, etc. IV, 823. — Nova Scotia.
rapax Walker, l. c. IV, 818. — North America (?).
rediviva Walker, l. c. IV, 823. — Huds. B. Terr.
***sarraceniae** Riley, Trans. St. Louis Acad. of N. Soc. III, 239. — Missouri.
stimulans Walker, List, etc. IV, 817. — North America.
vigil Walker, List, etc. IV, 831. — Nova Scotia.
viridescens R. Desvoidy, Myod. 342, 13 (*Myophora*). — Nova Scotia.
pallinervis Thomson, Eugen. Resa, etc. 535. — California, Honolulu.
***chrysostoma** Wiedemann, Auss. Zw. II, 356, 2 (compare also Schiner, Novara 313). — West Indies, Brazil.
conclausa Walker, Trans. Ent. Soc. N. S. V, 309. — Mexico.
cubensis R. Desvoidy, Myod. 342, 4 (*Myophora*). — Cuba.
cubensis Macquart, Dipt. Exot. II, 3, 106, 20; Tab. XII, f. 6; Bigot, in R. de la Sagra etc. 819. — Cuba.
despensa Walker, Trans. Ent. Soc. N. Ser. V, 309. — Mexico.
effrenata Walker, Trans. Ent. Soc. N. Ser. V, 309. — Mexico.
fervida R. Desvoidy, Myod. 341, 10 (*Myophora*) — San Domingo.

- fortipes** Walker, Trans. Ent. Soc. N. Ser. V, 310. — Haity.
fulvipes Macquart, Dipt. Exot. II, 3, 105, 19; Tab. XII, f. 5. — Cuba.
immanis Walker, List, etc. IV, 815. — Honduras.
innota Walker, Trans. Ent. Soc. N. S. V, 308. — Mexico.
intermutans Walker, Trans. Ent. Soc. N. Ser. V, 308. — Mexico.
incerta Bigot, in R. de la Sagra, etc. 818. — Cuba.
incerta Walker, Dipt. Saund., 324. — Jamaica.
lambens Wiedemann, Auss. Zw. II, 365, 23. — West Indies; Brazil.
muscoïdes Bigot, R. de la Sagra, etc. 816. — Cuba.
obsoleta Wiedemann, Auss. Zw. II, 367, 29. — West Indies.
occidua Fabricius, Ent. System. IV, 315, 12 (*Musca*); System. Antl. 288, 19; Wiedemann, Auss. Zw. II, 368, 31. — West Indies.
pusilla Bigot, R. de la Sagra, etc. 817. — Cuba.
perneta Walker, Trans. Ent. Soc. N. Ser. V, 303. — Mexico.
plinthopyga Wiedemann, Auss. Zw. II, 360, 10; Walker, Lin. Trans. XVII, 352, 57. — St. Thomas (Wied.); Brazil (Walker, Lin. Trans.). Jamaica, Demerara, Nova Scotia (Walker, List, etc. IV, 820).
plumipes R. Desvoidy, Myod. 336, 4 (*Peckia*). — San Domingo.
rubella Wiedemann, Auss. Zw. II, 357, 5. — Antigua.
trigonomaclulata Macquart, Dipt. Exot. II, 3, 106, 21; Tab. XIII, f. 2. — Mexico.
trivittata Macquart, Dipt. Exot. II, 3, 105, 18; Tab. XII, f. 3; Bigot, in R. de la Sagra etc. 816. — Cuba, Mexico.

Observation. *S. nudipennis* Loew in litt. is mentioned in Packard's Guide, etc. 408, as being bred from the nests of *Pelopaëus flavipes*. It has never been described and is therefore omitted. *Sarcophaga carnaria* Linné, quoted in Harris's Catal. Ins. Mass., in Riley's Seventh Report, 180, and in other writings, is omitted here for the reason stated in the note⁽²⁷⁵⁾. Macquart, Dipt. Exot. II, 3, 95, asserts that he had *Sarcophaga carnaria* from Hayti; this requires confirmation. About a *Sarcophaga* attacking grasshoppers in Iowa, see Report of the Departt. of Agriculture, Washington 1867, page 36.

Phrissopoda.

- Phrissopodia* Macquart, Hist. Nat. Dipt. II, 222; 1835.
Phrissopoda Macquart, Dipt. Exot. II, 3, 96.
praeceps Wiedemann, Auss. Zw. II, 355 (*Sarcophaga*; referred to the present genus by Macquart, Dipt. Exot. II, 3, 96). — Cuba.
Peckia imperialis R. Desvoidy, Myod. 335; Macquart, Hist. Nat. Dipt. II, 223; Tab. XVI, f. 1 (*Phrissopodia*). — Cuba; also Port Jackson, Australia, according to Macquart, Dipt. Exot. II, 3, 96. [Synonymy by Macquart, with a doubt.]

Cynomyia.

- R. Desvoidy, Myod., 363; 1830.
 Schiner, Fauna Austr. I, 574.
alpina Zetterstedt, Insecta Lapponica 651, 7; Dipt. Scand. IV, 1304; Gerstaecker, Die 2te deutsche Nordpolfahrt etc. Lapland; East Greenl.

- cadaverina* R. Desvoidy, Myod. 365, 3. — Carolina.
flavipalpis Macquart, Dipt. Exot. 4^e Suppl. 236, 3. — Newfoundland.
mortuorum Linné, Meigen, etc. (*Sarcophaga*); — O. Fabricius, Fauna Groenl. 206, 166 (*Musca*); Staeger, Groenl. Antl., 363, 32; Holmgren, Ins. Nordgroenl. 101. — Greenland.

FAMILY MUSCIDAE.

Stomoxys.

Geoffroy, Hist. des Ins. I; 1764.

- * *calcitrans* Linné, Meigen, etc.; Harris, Ins. of N. Engl. 3^d edit. 614, f. 270. — Europe and North America (comp. Loew, Sillim. J. l. c.).
Cybira Walker, List, etc. IV, 1159 (Addenda). — Nova Scotia.
dira R. Desvoidy, Myod. 387, 8. — North America.
inimica R. Desvoidy, Myod. 387, 6. — North America.
parasita Fabricius, Ent. System. IV, 394, 3; System. Antl. 280, 3; Wiedemann, Auss. Zw. II, 252, 11 (merely a translation from Fabricius). — North America.
 ? *occidentis* Walker, Dipt. Saund., 332 (*Musca*). — United States.

Idia.

Meigen, System. Besch. V, 9, 102; 1826. (273a).

- viridis* Wiedemann, Analecta etc. 50; Auss. Zw. II, 354, 11. — North America.

Mesembrina.

Meigen, System. Besch. V, 10, 103; 1826.

- Latreillii* R. Desvoidy, Myod. 401, 2. — Nova Scotia.
pallida Say, J. Acad. Phil. VI, 175; Compl. Wr. II, 366. — Indiana.
 * *resplendens* Wahlberg, K. vet. Ak. Förh. 1844, 66. — Europe (Lapland) and North America (comp. Loew, Sillim. J. l. c.).
anomala Jaenicke, Neue Exot. Dipt., 69; Tab. II, f. 4. — Cuba.

Calliphora.

R. Desvoidy, Myod. 433; 1830.

- aurulans* R. Desvoidy, Myod. 437, 11. — Carolina; Nova Scotia.
compressa R. Desvoidy, Myod. 438, 16. — Carolina (Desv.); Huds. B. Terr. (Walker, List, etc. IV, 893).
 * *erythrocephala* Meigen, System. Besch. V, 62; Schiner, Fauna Austr. I, 584. — Europe and North America (comp. Staeger, Groenl. Antl.).
Volucella vomitoria Fabricius, Fauna Groenl. 207, 167 (?) [Schödté].
groenlandica Zetterstedt, Ins. Lapp. 657, 16; Dipt. Scand. IV, 1330 (*Musca*); Staeger, Groenl. Antl. 363; Gerstaecker, 2^{te} deutsche Nordpolfahrt etc.; Holmgren, Ins. Nordgroenl. 101. — Northern Europe and Greenland.

- Volucella caesar* O. Fabricius, Fauna Groenl. 207, 168 [Schlödte].
Herda Walker, List, etc. IV, 908 (*Melinda*). — Huds. B. Terr.
Lilaca Walker, List, etc. IV, 894. — Huds. B. Terr.
mortisequa Kirby, N. Amer. Zool. Ins. 317. — Arctic America (Lat. 65).⁽²⁷⁴⁾
myoidea R. Desvoidy, Myod. 436, 8. — Philadelphia.
obscoena Eschscholtz, Entomographien I, 113, 84 (*Musca*); Wiedemann, Auss. Zw. II, 392 (*id.*). — Island Unalaska.⁽²⁷⁵⁾
splendida Macquart, Dipt. Exot. 1^{er} Suppl. 196, 17. — Texas.
terrae novae Macquart, Dipt. Exot. 4^e Suppl. 244, 29. — Newfoundland.
viridescens R. Desvoidy, Myod. 437, 12. — Carolina; Florida (Walker, List, etc. IV, 895).
***vomitoria** Linné, Fabricius, Meigen etc. (*Musca*). — Europe and North America (also in Guyana; Macquart, Dipt. Exot. II, 3, 127)
Calliphora vicina R. Desvoidy, Myod. 435, 5. — Philadelphia (is either *vomitoria* or *erythrocephala*).
femorata Walker, Trans. Ent. Soc. N. Ser. V, 310. — Mexico.
(?) rutilans Fabricius, Spec. Ins. II, 436, 6 (*Musca*); Ent. System IV, 314, 7 (*id.*); System. Antl. 287, 13 (*id.*); Wiedemann, Auss. Zw. II, 392, 14 (*id.*). — South America (Wied.); Fabricius has: „in Americae insulis“.
socors Walker, Trans. Ent. Soc. N. Ser. V, 311. — Mexico.
stygia Fabricius, Spec. Ins. II, 438 (*Musca*); Ent. System. IV, 317, 22 (*id.*); System. Antl. 290, 31 (*id.*); Olivier, Encycl. Méth. VIII, 14 (*id.*); Wiedemann, Auss. Zw. II, 398, 15 (*id.*). — Newfoundland (Fabr., Wied.).⁽²⁷⁶⁾

Pollenia.

R. Desvoidy, Myod. 412; 1830.

- *rudis** Fabricius (*Musca*); Meigen, System. Besch. V, 66 (*id.*). — Europe and North America (see Loew, Sillim J. l. c.).
Musca familiaris Harris, Ent. correspondence 336. — New England.
vespillo Fabricius, Meigen, etc. (*Musca*). — Europe and Nova Scotia (Walker, List, etc. IV, 907).

Graphomyia.

R. Desvoidy, Myod. 403; 1830.

- americana* R. Desvoidy, Myod. 404. — North America (Schiner, Novara 304, described another Gr. americana, from S. America).
?contigua Walker, Dipt. Saund., 449 (*Musca*). — United States.
Idessa Walker, List, etc. IV, 908. — Huds. B. Terr.
serva Walker, Dipt. Saund., 349 (*Musca*). — United States.

Lucilia.

R. Desvoidy, Myod. 452; 1830.

- brunnica* R. Desvoidy, Myod. 459. — North America.

- caesar** Linné, Fabricius, Meigen, etc. (*Musca*). — Europe and North America; Massachusetts and Huds. B. Terr. Walker, List, etc. IV, 879; Philadelphia, R. Desvoidy, Myod. 452.
- caeruleiviridis** Macquart, Dipt. Exot. 5^e Suppl. 113, 62. — Baltimore.
- carolinensis** R. Desvoidy, Myod. 457. — Carolina.
- compa** R. Desvoidy, Myod. 457. — Philadelphia.
- consobrina** Macquart, Dipt. Exot. 3^e Suppl. 57, 42 („var. *L. fraternae*“? Macq.). — North America.
- cornicina** Fabricius, Meigen, System. Besch. V, 57 (*M. caesarion*). — Europe and North America (according to v. d. Wulp, Tijdschr. etc. 2^d Ser. IV, 80).
- fraterna** Macquart, Dipt. Exot. 3^e Suppl. 57, 41. — North America.
- fulvifacies** R. Desvoidy, Myod. 467 (*Phormia*); Dipt. des envir. de Paris II, 848 (*id.*). — Paris, France; Philadelphia. —
- Heraea** Walker, List, etc. IV, 881. — North America.
- lepida** Desvoidy, Myod. 453. — France, Philadelphia, Nova Scotia.
- ***maecellaria** Fabricius, System. Ent. 776, 14 (*Musca*); Ent. System. IV, 319, 28 (*id.*); System. Antl. 292, 42 (*id.*); Olivier, Encycl. Méth. VIII, 14, 14 (*id.*); Wiedemann, Auss. Zw. II, 405, 36 (*id.*); Macquart, Dipt. Exot. II, 3, 147, 28; Tab. XVII, f. 9; Bigot in R. de la Sagra etc. 820. — Brazil, Cuba, United States.
- Lucilia hominivorax* Coquerel, Ann. Soc. Ent. 1858, 173; Tab. IV, f. 2.
- mollis** Walker, List, etc. IV, 892 (*Phormia*). — Huds. B. Terr.
- muralis** Walker, List, etc. IV, 888. — Huds. B. Terr.
- nigrina** Bigot, Ann. Soc. Ent. Fr. 1877, 247. — Illinois.
- philadelphia** R. Desvoidy, Myod. 466 (*Phormia*). — Philadelphia.
- regina** Meigen, System. Besch. V, 58 (*Musca*). — Europe and North America (according to Harris, Cat. Ins. Mass.).
- rufipalpis** Jaennicke, Neue Exot. Dipt. 67. — Illinois.
- Sayi** Jaennicke, Neue Exot. Dipt. 67. — Illinois.
- terrae novae** Macquart, Dipt. Exot. 4^e Suppl. 251, 57; Tab. XXIII, f. 1. — Newfoundland.
- terrae novae** R. Desvoidy, Myod. 467 (*Phormia*). — Newfoundland.
- ? **proxima** Walker, Dipt. Saund. 341 (*Musca*). — California.
- stigmatalis** Thomson, Eugen. Resa, 544. — California.
- argentifera** Bigot, Ann. Soc. Ent. Fr. 1877, 251. — Mexico.
- brunnicornis** Macquart, Dipt. Exot. II, 3, 142, 15. — Mexico.
- Chuvia** Walker, List, etc. IV, 885. — West Indies.
- callipes** Bigot, Ann. Soc. Ent. Fr. 1877, 249. — Mexico.
- flavigena** Bigot, Ann. Soc. Ent. Fr. 1877, 249. — Mexico.
- fulvinota** Bigot, Ann. Soc. Ent. Fr. 1877, 251. — Mexico.
- insularis** Walker, Dipt. Saund. 340 (*Musca*). — West Indies.
- meridensis** Macquart, Dipt. Exot. 1^{er} Suppl. 199, 33. — Yucatan.
- mexicana** Macquart, Dipt. Exot. II, 3, 143, 17; Tab. XVIII, f. 7. — Mexico.
- mutabilis** Bigot, Ann. Soc. Ent. Fr. 1877, 248. — Mexico.

- nigriceps** Macquart, Dipt. Exot. II, 3, 143, 16. — Mexico.
pallidibasis Bigot, Ann. Soc. Ent. Fr. 1877, 247. — Mexico.
picierus Thomson, Eugen. Resa, 543. — Panama.
pueblensis Bigot, Ann. Soc. Ent. Fr. 1877, 250. — Mexico.
putrida Fabricius, Ent. System. IV, 316, 16 (*Musca*); System. Antl. 288, 24 (*id.*); Wiedemann, Auss. Zw. II, 404, 35 (*id.*). — South America (Wied.); Cuba (Jaennicke, Nene Exot. Dipt. 4).
ruficornis Macquart, Dipt. Exot. 1^{er} Suppl. 198; compare also Schiner, Novara, 304. — Columbia, S. Amer. (Macq.); Cuba (Bigot, in R. de la Sagra 821); Chile (Schiner).
surrepens Walker, Trans. Ent. Soc. N. Ser. V, 312. — Mexico.
violacea Macquart, Dipt. Exot. 2^e Suppl. 83, 34. — Mexico.

Chrysomyia.

R. Desvoidy, Myod. 444; 1830.

- caerulescens** R. Desvoidy, Myod. 447, 8. — Carolina.
certima Walker, List, etc. IV. 873. — Florida.
L'herminieri R. Desvoidy, Myod. 446, 6. — Carolina.
hyacinthina R. Desvoidy, Myod. 450, 16; Macquart, Dipt. Exot. II, 3, 148, 29 (*Lucilia*). — South America (R. Desv.); North America (Macq.).
turbida Walker, Dipt. Saund., 336 (*Musca*). — United States.
aztequina Bigot, Ann. Soc. Ent. Fr. 1877, 252. — Mexico.
decora R. Desvoidy, Myod. 448, 10. — West Indies.
Placi R. Desvoidy, Myod. 448, 11. — West Indies.
tibialis R. Desvoidy, Myod. 446, 5. — San Domingo.

Somomyia.

- Rondani, Atti del Accad. delle Sci. di Bologna, 1861; Prodrusus, IV, 9.
Sylphida Bigot, Ann. Soc. Ent. Fr. 1877, 45, 17. — New Orleans.
semiviolacea Bigot, l. c. 46, 18. — Porto Rico.
soulouquina Bigot, l. c. 47, 20. — Hayti.

Pyrellia.

R. Desvoidy, Myod. 462; 1830.

- cadaverina** Linné, Meigen, System. Besch. V, 59, 19 (*Musca*). — Europe and North America (Fitch, Survey etc. 801).
cadaverum Kirby, Fauna Bor. Amer. Ins. 316, 1 („very near to *Musca cadaverina*“, says Kirby). — Arctic America, lat. 65.
occidentis Walker, Dipt. Saund., 347 (*Musca*). — United States.

NB. On page 332 of the same volume, Walker described another *Musca occidentis* (see *Stomoxys*).

- ***setosa** Loew, Centur. VIII, 63. — Illinois

frontalis Thomson, Eugen. Resa, etc. 545. — California.

basalis Walker, Dipt. Saund., 347. — West Indies.

centralis Loew, Centur. VIII, 62. — Cuba.

ochricornis Wiedemann, Auss. Zw. II, 408, 41 (*Musca*): Macquart, Dipt. Exot. II, 3, 149, 3; Tab. XX, f. 5; Bigot, in R. de la Sagra etc. 821. — Brazil (Wied.); Cuba (Macq.; Bigot).

scordalus Walker, Trans. Ent. Soc. N. Ser. V, 313. — Mexico.

specialis Walker, Trans. Ent. Soc. N. Ser. V, 312. — Mexico.

suspiceax Walker, l. c. — Mexico.

Ormia.

R. Desvoidy, Myod. 428; 1830; *Ochromyia*, Macquart, Hist. Nat. Dipt. II, 250; Dipt. Exot. II, 3, 132.

punctata R. Desvoidy, Myod. 428, 1; Macquart, Hist. Nat. Dipt. II, 250, 3 (*Ochromyia*). — West Indies (R. Desv.); Jamaica (Walker, List, etc. IV, 868).

Musca.

Linné, Fauna Suecica; 1763.

corvina Fabricius, Meigen, System. Besch. V, 69, 32. — Europe and North America (Nova Scotia, Walker, List, etc. IV, 900). Occurs also in the East Indies, Manilla, Taiti, etc. (see Schiner, Novara 307).

***domestica** Linné, etc. — Europe and North America (the common house-fly; see Loew, in Sillim. Journ. l. c.; about the occurrence in Cuba, see Bigot in R. de la Sagra, 822).

Musca harpyia Harris, Ent. Correspondence 335.

basilaris Macquart, Dipt. Exot. II, 3, 153, 8. — Brazil (Macq.); Jamaica (Walker, List, etc. IV, 901).

pusilla Macquart, Dipt. Exot. 3^e Suppl. 59, 16; Tab. VI, f. 13. — Hayti.

sensifera Walker, Trans. Ent. Soc. V, 314. — Mexico.

NB. *Musca cloacaris* O. Fabricius, Fauna Groenl. 204, 163, may be *Scatophaga litorea* Fall., according to Schiödte, Berl. Ent. Zeitschr. 1859, 153.

Musca vivax O. Fabricius, l. c. 206, 165 (I do not know.)

Cyrtoneura.

Cyrtoneura Macquart, Hist. Nat. Dipt. II, 274; 1835; amended by later authors.

***micans** Macquart, Dipt. Exot. 5^e Suppl. 116, 10. — Baltimore.

***stabulans** Fallen, Meigen, System. Besch. V, 75, etc. (*Musca*). — Europe and North America (see Loew, in Sillim. Journ. l. c.). Occurs also in New Zealand (Schiner, Novara, 304).

quadrisetosa Thomson, Eugen. Resa. 549. — California.

recurva Thomson, Eugen. Resa, 548. — California.

mexicana Macquart, Dipt. Exot, II, 3, 1:8, 4; Tab. XXI, f. 9. — Mexico.

Myospila.

Rondani, Prodrum. Dipt. Ital. I, 91, 9; 1856.

Schiner, Fauna Austr. Dipt. I, 598.

- **meditabunda* Fabricius; Panzer; Meigen, System. Besch. V, 79 (*Musca*). — Europe and North America (see Loew, Sillim. Journ. I. c.; compare however the observation at the end of the genus *Spilogaster*).

FAMILY ANTHOMYIDAE.⁽²⁷⁷⁾

Aricia.

R. Desvoidy, Myod. 486; 1830.

bispinosa Zetterstedt, I. i. pt. Scand. IV, 1428; Holmgren, Ins. Nordgroenl. 101. — Northern Sweden; Greenland.

cinerella v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 150. — Wisconsin.

deflorata Holmgren, Ins. Nordgroenl. 102. — Greenland.

denudata Holmgren, Ins. Spetsb. 30; Ins. Nordgroenl. 101. — Spitzbergen and Greenland.

dorsata Zetterstedt, Dipt. Scand. IV, 1472, 82; Holmgren, Ins. Spetsb. 29; Ins. Nordgroenl. 101. — Lapland; Spitzbergen, Greenland.

frenata Holmgren, Ins. Nordgroenl. 103. — Greenland.

Fabricii Holmgren, Ins. Nordgroenl. 101. — Greenland.

icterica Holmgren, Ins. Nordgroenl. 102. — Greenland.

incerta Walker, Dipt. Saund., 354. — United States.

moesta Holmgren, Ins. Nordgroenl. 102. — Greenland.

morioides Zetterstedt (perhaps *morio* Zett.? I do not find an *A. morioides* Zett.). — Europe and North America (see Loew, Sillim. Journ. I. c.).

pauvilla Holmgren, Ins. Spetsb. 32; Ins. Nordgroenl. 101. — Spitzbergen, Greenland.

proxima v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. IV, 85. — Wisconsin.

pruinosa Macquart, Dipt. Exot. 1^{er} Suppl. 201, 4 — Galveston, Texas.

ranunculi Holmgren, Ins. Spetsb. 34; Ins. Nordgroenl. 101. — Spitzbergen, Greenland.

solita Walker, Dipt. Saund., 354. — United States.

tarsalis Walker, Dipt. Saund., 355. — United States.

tristicula Holmgren, Ins. Nordgroenl. 102. — Greenland.

circulatrix Walker, Trans. Ent. Soc. N. Ser. V, 316. — Mexico.

proceedens Walker, Trans. Ent. Soc. N. Ser. V, 315. — Mexico.

rescita Walker, Trans. Ent. Soc. N. Ser. V, 315. — Mexico.

Observation. R. H. Meade Esq., in Bradford, England, having published a most interesting article: Notes on the An-

thomyidae of North America (Ent. Monthly Magazine, April 1878, p. 250—252), I have reproduced his conclusions below, at the end of each corresponding genus; compare also the note²⁷⁷ for the general conclusions.

About *Aricia* he writes:

The genus *Polietes* (Rond.) of which the well-known (European) *M. lardaria* F. is the principal species, is not represented in the (North American) collection.

„In the genus *Hytodesia* (*Aricia* pt. Macq.). I determined seven distinct (North American) species, several of which closely resemble European, as *Musca lucorum* Fall., *A. lugubris* Meig., and *A. obscurata* Meig., but none of them, I think, are quite identical.“

„In the genus *Mydaea* (*Aricia* pt. Macq.). I found ten species, only one of which was similar to any in Europe, viz. the common *M. pagana* F., which has a yellow scutellum.“

Spilogaster.

Macquart, Hist. Nat. Dipt. II, 293; 1835.

**angelicae* Meigen, System. Besch. V, 117, 59 (*Musca*). — Europe and North America (see Loew, Sillim. Journ. l. c. *Hylemyia angelicae*).

**urbana* Meigen, System. Besch. V, 118, 60 (*Musca*). — Europe and North America (see Loew, Sillim. Journ. l. c. *Hylemyia urbana*); Lake Winnipeg; Connecticut.

terminalis Walker, Dipt. Saund., 356. — United States.

Observation. Mr. Meade says (l. c.):

„In *Spilogaster* there were eleven (North American) species, one or two of which closely resembled European species, but were, however, distinct. One fly in this genus possessed several interesting characters, which deserve especial notice. There was only one male in the collection and it bore a remarkable resemblance to *Cyrtoneura* (*Myospila*) *meditabunda* F. The fifth longitudinal vein was curved in a similar manner towards the fourth vein, though in a less degree; the spots upon the abdomen and the general color, size and appearance, were also very like those of that fly; but it differed in having the eyes naked and the arista furnished with much shorter hairs.“

Hydrophoria.

Rob. Desvoidy, Myod., 503; 1830.

„The genus was represented by three (N. A.) species, all of small size; one of which was similar to *Musca ambigua* Fallen.“ (R. H. Meade, l. c. p. 251.)

Hydrotæa.

R. Desvoidy, Myod. 509; 1830.

**armipes* Fallen, Dipt. Suec. Musc. 75, 86; Zetterstedt, Dipt. Scand. IV, 1434, 44. — Europe and North America (see Loew, Sillim. Journ. l. c. and Meade, Ent. Monthly Mag. April 1878).

- * *dentipes* Meigen, System. Besch. V. 144, 105; Staeger, Groenl. Antl. 363, 35. — Europe and North America (see Loew, Sillim. Journ. l. c. and Meade, Ent. Monthly Mag. April 1878).
ciliata Fabricius; Meigen, System. Besch. V, 159 (*Musca spinipes* Fallen); Staeger, Groenl. Antl. — Europe and Greenland.
irritans Fallen, Dipt. Suec. Musc. 62, 58; Zetterstedt, Dipt. Scand. IV, 1431, 10; Staeger, Groenl. Antl. 363, 35. — Europe and Greenland.

Observation. „I found only two species belonging to the genus *Hydrotaca*, both of which seemed identical with the common european *M. dentipes* F. et *M. armipes* Fall.“ (Meade, l. c.)

Lasiops.

Meigen, System. Besch. VII, 323; 1838.

„The genus *Lasiops* contained two (N. A.) species, one closely resembling *L. cunctans* Meig.“ (R. H. Meade, l. c. p. 251.)

Ophyra.

R. Desvoidy, Myod. 516; 1830.

Schiner, Fauna Austr. I, 619.

- acneseens* Wiedemann, Auss. Zw. II, 435, 29 (*Anthomyia*); Macquart, Dipt. Exot. 1^{er} Suppl. 203, 4. — New Orleans (Wied.); Texas (Macq.).
 * *leucostoma* Wiedemann, Zool. Mag. I, 82 (*Anthomyia*); Meigen, System. Besch. V, 160 (*id.*). — Europe and North America (Loew, in Sillim. Journ. l. c. and Meade, in Ent. M. Mag. April 1878, p. 251); Atlantic States, common.

Drymeia.

Meigen, System. Besch. V, 204; 1826.

„In the genus *Drymeia*, I found, as in Europe, one well marked species only, which exhibited all the peculiar characters seen in the *M. hamata* of Fallén, but was quite distinct from that common fly.“ (R. H. Meade l. c.).

Limnophora.

R. Desvoidy, Myod. 517; 1830.

- contractifrons* Zetterstedt, Ins. Lapp. 683, 97 (*Anthomyza*); Dipt. Scand. IV, 1463 (*Aricia*).
Anthomyza arctica Zetterstedt, Ins. Lapp. 669, 34 (*Varictas*); Staeger, Groenl. Antl. — North of Europe and Greenland.
 * *diaphana* Wiedemann, Zool. Mag. I, 81, 31 (*Anthomyia*); Meigen, System. Besch. V, 189, 185 (*id.*). — Europe and North America (see Loew, Sillim. Journ. l. c.).
 * *stygia* Meigen, System. Besch. V, 155, 127 (*Anthomyia*). — Europe and North America (see Loew, Sillim. Journ. l. c. *Anthom. stygia*); Sitka.

triangulifera Zetterstedt, Ins. Lapp. 680, 83 (*Anthomyza*); Staeger, Groenl. Antl. 364, 40. — Europe and Greenland.

trigonifera Zetterstedt, Ins. Lapp. 669, 33 (*Anthomyza*); Dipt. Scand. IV, 1466 (*Aricia*); Staeger, Groenl. Antl. 364, 38. — Europe and Greenland.

Observation. „The genus *Limnophora* contained eight (N. A.) species, two or three of which closely resembled european ones; but none of them appeared quite identical. In the european species of this family, of which the *A. compuncta* Wied. is the type, the eyes of the males are sometimes separated by a rather wider space than is usual among the Anthomyidae, except in *Coenosia*, *Lispa* etc., and this character was marked in an exaggerated degree in all the american species, so that it was difficult to determine by the eyes alone, whether they should be placed in the genus *Limnophora* or *Coenosia*.” R. H. Meade, l. c.

Eriphia.

Meigen, System. Besch. V, 206; 1838.

? **Acela** Walker, List, etc. IV, 962.

Arelate Walker, List, etc. IV, 961.

biquadrata Walker, l. c. 963.

ciliata Walker, l. c. 961.

flavifrons Walker, l. c. 966.

grisea Walker, l. c. 962.

Lamnia Walker, l. c. 964.

lata Walker, l. c. 963.

marginata Walker, l. c. 964.

pretiosa Walker, l. c. 965.

Huds. B. Terr.

Hylemyia.

Rob. Desvoidy, Myod. 550; 1830.

* **deceptiva** Fitch, Reports, Vol. I, 301; Tab. I, f. 3. — New York.

frontata Zetterstedt, Ins. Lapp. 669, 35; Dipt. Scand. IV, 1453, 64; Staeger, Groenl. Antl. 363, 37. — Europe (Lapland) and Greenland.

* **piei** Macquart, Ann. Soc. Ent. 1853, 657; Tab. XX, Nr. 2 (*Aricia*). — San Domingo; The larva lives in a swelling on the wing of *Picus striatus*.

Hylemyia angustifrons Loew, Wien. Ent. Monatschr. V, 41. — Cuba [Loew *in litt.*].

probata Walker, Trans. Ent. Soc. N. Ser. V, 318. — Mexico.

Anthomyia. (*)

Meigen, in Illiger's Magaz. II; 1803.

brassicae (Bouché?), A. Fitch, Report XI, 40. — Europe and North America (injurious to cabbage).⁽²⁷⁸⁾

*) I have prefixed a ? before those species which are Anthomyiae in the wider sense only, not in that of Schiner.

- campestris** R. Desvoidy, Myod. 535 (*Egle*). — Europe and North America (Philadelphia).
ceparum (Meigen, Bouché) A. Fitch, Report. XI, 31; Walsh, Amer. Ent. II, 110, f. 72. (²⁷⁰).
 ? **communis** Walker, Dipt. Saund., 366. — United States.
Dejeanii R. Desvoidy, Myod. 558, 4 (*Nerina*). — Philadelphia.
 ? **dubia** Curtis, Ins. Ross's Exp. LXXIX. — Arctic America.
 ? **raphani** Harris, Ins. of New Engl. 3^d edit. 617; Fitch, Report XI, 59 (injurious to radish plants). — New England; New York.
ruficeps Meigen, System. Besch. V, 177, 162; Staeger, 366, 43. — Europe and Greenland.
 ? **similis** Fitch, Reports I, 301. — New York.
scatophagina Zetterstedt, Ins. Lapp. 677, 69 (*Anthomyza*); Dipt. Scand. IV, 1510, 120 (*Aricia*); Staeger, Groenl. Antl. — North of Europe and Greenland.
striolata Fallen; Meigen, System. Besch. V, 173, 156; Zetterstedt, Ins. Lapp. 684, 103; Staeger, Groenl. Antl., 365, 42. — Europe and Greenland.
 * **tarsata** v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 151; Tab. V, f. 6. — Wisconsin.
 ? **Zeas** Riley, 1st Report 154; Tab. II, f. 24 (injurious to indian corn). — Missouri.
 ? **leucoprocta** Wiedemann, Auss. Zw. II, 433. — West Indies.
 ? **protrita** Walker, Trans. Ent. Soc. N. Ser. V, 317. — Mexico.
micropteryx Thomson, Eugen. Resa 555. — California.
ochripes Thomson, l. c. 553. — California.
ochrogaster Thomson, l. c. 557. — California.

Species described in Mr. Walker's List etc. IV. They are left in the subdivisions adopted by him.

A. Feeler-bristle feathered or hairy, Meigen. Dipt. V, Tab. 44, f. 1, 2.

a. Legs black.

* Eyes hairy.

Rugia Walker, l. c. 923. — Huds. B. Terr.

** Eyes non hairy.

palposa Walker, l. c. 926. — Huds. B. Terr.

spinosa Walker, l. c. 926. — Huds. B. Terr.

Apina Walker, l. c. 927. — Nova Scotia.

Anane Walker, l. c. 927. — Huds. B. Terr.

Lipsia Walker, l. c. 928. — Huds. B. Terr.

Pylone Walker, l. c. 928. — North America.

nigripennis Walker, l. c. 929. — Huds. B. Terr.

Omole Walker, l. c. 930. —

"

similis Walker, l. c. 930. —

"

- nigra* Walker, l. c. 931. — Huds. B. Terr.
Teate Walker, l. c. 931. — "
nigrifrons Walker, l. c. 932. — "
Barpana Walker, l. c. 933. — Nova Scotia.
Narina Walker, l. c. 933. — Nova Scotia.

b. Legs wholly or mostly yellow.

* Eyes hairy.

- Luteva* Walker, l. c. 934. — Nova Scotia.

** Eyes not hairy.

- Bysia* Walker, l. c. 936. — Nova Scotia.
Troene Walker, l. c. 936. — "
Aemene Walker, l. c. 937. — "
Alcathoe Walker, l. c. 937. — "
Lyssinoe Walker, l. c. 938. — "
Ausoba Walker, l. c. 938. — "
Signia Walker, l. c. 939. — "
Geldria Walker, l. c. 940. — "
Alone Walker, l. c. 941. — Huds. B. Terr.
soccata Walker, l. c. 941. — "

B. Feeler-bristle downy or bare; legs black; eyes not hairy.

- Narona* Walker, l. c. 945. — Florida.
Donuca Walker, l. c. 946. — Nova Scotia.
Brixia Walker, l. c. 946. — "
Alaba Walker, l. c. 948. — North America.
Idyla Walker, l. c. 948. — Huds. B. Terr.
Uxama Walker, l. c. 948. — "
Timia Walker, l. c. 949. — "
Badia Walker, l. c. 950. — "
Perrima Walker, l. c. 950. — "
Viana Walker, l. c. 951. — Nova Scotia.
Aera Walker, l. c. 951. — Huds. B. Terr.
Isura Walker, l. c. 952. — Nova Scotia.
determinata Walker, l. c. 955. — "
Opalia Walker, l. c. 956. — "

Observation. Mr. Meade (Entom. Monthly Mag April 1878) says about N. A. Anthomyiae: „In this genus, as now restricted, I determined eight species, one of which seemed identical with *Musca radicum*, Lin. and another with *M. pluvialis* Lin.

Chortophila.

Macquart, Hist. Nat. Dipt. II, 323, 1825; Rondani, Dipt. Ital. Prodr.

„A large number of small flies in the (North American) collection could be referred to the genus *Chortophila*. I made out as many as twenty nine distinct species, several of which were similar

to European forms, viz. *C. floccosa* Macq., *A. angustifrons* Meigen, *A. gilra* Zett., *A. vittigera* Zett. and *A. flavoscutellata* Zett." (R. H. Meade, in Ent. Monthly Magaz., April 1878, p. 252.)

Azelia.

Rob. Desvoidy, Essai sur les Myodaires, 1830; Loew, Die deutschen Arten d. Gatt. Azelia (Ent. Miscellen etc. Breslau 1874).

Mr. Meade says about the North American Azeliae (Ent. Monthly Magaz. April 1878).

"The only species in this genus corresponded with *A. Stuegeri* Zett." According to Loew, i. e. the latter in the same with *A. citipes* Haliday, Ann. Nat. Hist. II, p. 105, which is the older name.

Atomogaster.

Macquart, Hist. Nat. Dipt. II, 329; 1835.

**albicincta* Fallen, Meigen, etc. — Europe and North America (Loew *in litt.*); Nebraska, Texas.

Homalomyia.

Bouché, Naturgesch. d. Ins. I, 88; 1834.

**canicularis* Linné, Meigen, System. Besch. V, 143, 104 (*Anthomyia*). — Europe and North America (see Loew, Sillim. Journ. I. c. and Meade, Ent. Monthly Mag. 1878, April).

**manicata* Meigen, System. Besch. V, 140, 100 (*Anthomyia*); Zetterstedt, etc. — Europe and North America (see Loew, I. c.).

prunivora Walsh, Amer. Ent. II, 137 (description of imago and larva). — Illinois. (280).

**scalaris* Fabricius; Meigen, System. Besch. V, 141, 102 etc. (*Anthomyia*). — Europe and North America (see Loew, Sillim. Journ. I. c. and Meade, Ent. Monthly Mag. 1878, April).

Fannia saltatrix R. Desvoidy, Myod. 567 [Schiner].

**serena* Fallen, Musc. 76, 88. — Europe (Sweden) and North America (Loew *in litt.*).

**spathulata* Zetterstedt, Dipt. Scand. IV, 1543. — Europe (Lapland) and North America (Loew *in litt.*).

**subpellucens* Zetterstedt, Dipt. Scand. IV, 1561, 176. — Europe (Lapland) and North America (Loew, Sillim. Journ. I. c.).

**tetracantha* Loew, Centur. X, 69. — Middle States.

femorata Loew, Wiener Ent. Monatschr. V, 42, 18; Centur. X, 68. — Cuba.

Observation. „There were five (N. A.) species, belonging to this genus, three of which seemed identical with the common European *M. canicularis* L., *A. scalaris* M., and *A. incisurata* Zett. It is most probable that these common flies, which abound in and about our houses in Europe, have been imported into America, like the house fly, *M. domestica*." (R. H. Meade, I. c.)

Dialyta.

Meigen, System. Besch. V, 203; 1-26. (2⁸¹).

? *eupreifrons* Walker, List, etc. IV, 966. — Huds. B. Terr.

Lispe.

Lispa Latreille, Precis etc.; 1796. (2⁸²).

* *flavicincta* Loew, Stett. Ent. Zeit. VIII, 27. — Europe and North America, Huds. B. Terr. (Loew *in litt.*).

* *consanguinea* Loew, Wiener Ent. Monatsch. II, 8. — Europe and North America, Texas (Loew *in litt.*).

hispida Walker, List, etc. IV, 971. — Huds. B. Terr.

* *sociabilis* Loew, Centur. II, 72. — Distr. Columbia.

simillima Walker, List, etc. IV, 972. — Huds. B. Terr.

* *uliginosa* Fallen, Dipt. Suec. (*Musca*) 93, 2; Loew, Stett. Ent. Zeitschr. VIII, 24. — Europe and North America (Loew, in Sillim. Journ. l. c. and Meade, in Ent. Monthly Magaz. April 1878, p. 252).

Observation. „The genus *Lispa* contained three (N. A.) species, one similar to *L. tentaculata* Degeer, and another to *L. uliginosa* Fall.“ (Meade, l. c.)

Caricea.

Rob. Desvoidy, Myod., p. 530; 1830.

„This genus contained but one species, which seems to be very common in America, as there were numerous specimens of it in the collection; it was of considerable size and the females bore a remarkable resemblance to those of *M. impuncta* Fall., but the males were very different and quite characteristic of the genus.“ (Meade, l. c.)

Coenosia.

Meigen, System. Besch. V, 210; 1826.

* *calopyga* Loew, Centur. X, 71. — Pennsylvania.

incisurata v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. IV, 84. — Wisconsin.

* *modesta* Loew, Centur. X, 72. — Distr. Columbia.

* *nivea* Loew, Centur. X, 70. — Pennsylvania.

(For *Coenosia tricineta* Loew, Centur. IX, 83, see *Cordylura*, where it has been transferred by Loew *in litt.*).

fuscopunctata Macquart, Dipt. Exot. 4^e Suppl. 270, 4. — North America.

Mr. Walker's species:

antica Walker, Dipt. Saund., 367. — United States.

atrata Walker, Dipt. Saund., 369. — United States.

intacta Walker, Dipt. Saund., 369. — United States.

intacta Walker (bis!) Trans. Ent. Soc. N. S. V, 318. — North America.

- lata* Walker, Dipt. Saund., 368. — United States.
sexmaculata Walker, List, etc. IV, 970. — Huds. B. Terr.
solita Walker, Dipt. Saund., 368. — Huds. B. Terr.
spinosa Walker, List, etc. IV, 967. — Huds. B. Terr.
substituta Walker, List, etc. IV, 971. — Massachusetts.

Observation: Mr. Meade (Ent. Monthly Magaz. April 1878) made out sixteen north american species of *Coenosia*, many of which were very similar in their characters to european ones; but he could only identify one, which was apparently identical with *A. pygmaea* Zett.

Schoenomyza.

Haliday, Ent. Mag. 1833. (283).

- * *chrysostoma* Loew, Centur. IX, 86. — New Hampshire.
 * *dorsalis* Loew, Centur. X, 73. — Distr. Columbia.

FAMILY CORDYLURIDAE.

Cordylura.

Fallen, Spec. Ent. etc.; 1810. (284).

- * *acuticornis* Loew, Centur. IX, 94. — British North America.
 * *adusta* Loew, Centur. III, 41. — New Jersey; White Mts., N. H.
 * *albibarba* Loew, Centur. IX, 96. — White Mts., N. H.
 * *angustifrons* Loew, Centur. III, 45. — Wisconsin.
 * *bimaculata* Loew, Wiener Ent. Monatschr. IV, 81, 3; Centur. III, 40. — Atlantic States; Canada.
Cordylura maculipennis v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 152; Tab. V, f. 7—9. [Loew, Zeitschr. f. Ges. Naturw. XXXVI, 116, 9.]
Lissa varipes Walker, List, etc. IV, 1046. — Ohio (!).
 * *capillata* Loew, Centur. X, 77. — White Mts., N. H.
 * *cineta* Loew, Centur. III, 47. — Distr. Columbia.
 * *confusa* Loew, Centur. III, 43. — British. N. A.
Cordylura pubera Linné, in Walker, List, etc. IV, 972. — Huds. B. Terr.
 * *cornuta* Loew, Centur. III, 48. — British possessions; White Mts., N. H. (the patria „British Columbia in the Centuries, is erroneous).
 * *flavipes* Loew, Centur. III, 46. — Wisconsin.
 * *fulvibarba* Loew, Centur. X, 76. — Fort Resolution, Huds. B. Terr.
 * *gagatina* Loew, Centur. IX, 93. — Canada.
 * *gilvipes* Loew, Centur. III, 49. — English River, Lake Winnipeg.
 * *glabra* Loew, Centur. IX, 90. — White Mts., N. H.
 * *gracilipes* Loew, Centur. IX, 87. — White Mts., N. H.
 * *haemorrhoidalis* Meigen, System. Besch. V, 237; — Staeger, Groenl. Antl. 366. — Europe and North America; Greenland (Staeger); White Mts., N. H. (Loew *in litt.*).

- impudica* Reiche, Ann. Soc. Ent. de Fr. 1857, Bullet. p. 77 (*Anthomyia*). — Greenland (is a *Cordylura*, according to Loew, Berl. Ent. Zeitschr. 1858, 347).
- **inermis* Loew, Centur. IX, 88. — White Mts., N. H.
- **latifrons* Loew, Centur. IX, 92. — Middle States.
- **lutea* Loew, Centur. X, 75. — Sitka.
- **megacephala* Loew, Centur. IX, 94. — Distr. Columbia.
- **munda* Loew, Centur. IX, 91. — Fort Resolution, Huds. B. Terr.
- **nana* Loew, Centur. V, 94. — Canada.
- pictipennis* Loew, Wiener Ent. Monatschr. VIII, 22. — Siberia and North America.
- **pleuritica* Loew, Centur. III, 42. — English River, Winnipeg; Massachusetts; Connecticut.
- **praeusta* Loew, Centur. V, 93. — Canada.
- qualis* Say, J. Acad. Phil. VI, 176; Compl. Wr. II. 366. — Indiana [„eyes approximate above“, cannot be *Cordylura*! Loew, *in litt.*].
- **scapularis* Loew, Centur. IX, 89. — English River, Winnipeg.
- **setosa* Loew, Wiener Ent. Monatschr. IV, 81, 4; Centur. III, 44. — Distr. Columbia.
- **terminalis* Loew, Centur. III, 39. — Pennsylvania.
- **tricincta* Loew, Centur. IX, 83 (*Coenosia*); transferred to *Cordylura*, by Loew, *in litt.* — White Mts., N. H.
- **variabilis* Loew, Zeitschr. f. Ges. Naturw. 1876, 326. — Massachusetts.
- **vittipes* Loew, Centur. X, 74. — Sitka.
- **unilineata* Zetterstedt, Dipt. Scand. V, 2010. — Sweden, Lapland; also in Sitka (Loew *in litt.*).

Observation. Species from Mr. Walker's List, etc.

- Aca*, l. c. IV, 978. — Huds. B. Terr.
bicolor, l. c. 974. — Huds. B. Terr.
cupricrus, l. c. 974. — Huds. B. Terr.
flavipennis, l. c. 975. — Huds. B. Terr.
imperator, l. c. 975. — Huds. B. Terr.
longa, l. c. 976. — Huds. B. Terr.
tenuior, l. c. 977. — Huds. B. Terr.
voluericuput, l. c. 977. — Huds. B. Terr.

Hydromyza.

Fallen, Dipt. Suec. Hydromyz.; 1823.

- **confluens* Loew, Centur. III, 50. — English River, Lake Winnipeg.

Scatophaga.

Meigen, Illiger's Magaz. II; 1803; *Scatomyza* Fallen; *Pyropa* Illiger.

- aricifformis* Holmgren, Ins. Nordgroenl. 103. — Greenland.
apicalis Curtis, Ins. Ross's Exp. LXXX. — Arctic. America.
bicolor Walker, List, etc. IV, 982. — Huds. B. Terr.
canadensis Walker, Trans. Ent. Soc. N. Ser. IV, 218. — Canada.

exotica Wiedemann, Auss. Zw. II, 443, 3. — New Orleans.

fuscinervis Zetterstedt, Dipt. Scand. V, 1974, 11; Holmgren, Ins. Nordgroenl. 107. — Lapland and Greenland.

intermedia Walker, List, etc. IV, 980. — Nova Scotia.

litorea Meigen, etc. Staeger's Groenl. Antl. p. 366, 46. — Europe and Greenland.

nigripes Holmgren, Ins. Spetsb. 34; Ins. Nordgroenl. 103. — Spitzbergen and Greenland.

pallida Walker, List, etc. IV, 981. — Huds. B. Terr.

pubescens Walker, List, etc. IV, 982. — Huds. B. Terr.

***squalida** Meigen, etc.; Staeger, Groenl. Antl. 366, 45. — Europe and North America (the occurrence in the latter is confirmed by Loew, in Sillim. Journ. XXXVII, p. 318); Nova Scotia (Walker, List, etc. IV, 981).

Pyropha furcata Say, J. Acad. Phil. III, 98; Compl. Wr. II, 85 [Loew, l. c].

Scatophaga furcata Wiedemann, Auss. Zw. II, 449, 5 (merely a translation from Say).

Scatophaga postilena Harris, Catal. Ins. Mass.

***stereoraria** Linné, etc. — Europe and North America (Occurrence confirmed by Loew, in Sillim. Journ., XXXVII, 318). (²⁵⁶).

thinobia Thomson, Eugen. Resa, 563. — California.

Fucellia.

Rob. Desvoidy, Ann. Soc. Ent. de Fr. 2^e Ser X, 269—271; 1841;

Halithea Haliday (preoccupied).

***fucorum** Fallen, Zetterstedt, etc (*Scatomyza*); Curtis's Ins. Ross's Exp. LXXX; Staeger, Groenl. Antl. 366, 47. — Europe and North America.

Scatina.

Rob. Desvoidy, Myod., 629; 1830; compare also Rondani, Prodr. I, 102.

estotilandica Rondani, Archiv. etc. Canestrini III, fasc. 1, p. 35. — Labrador.

Observation. Mr. Rondani, in the same place, mentions *Scatophaga diadema* Wiedemann (Montevideo), as having been received from Labrador.

FAMILY HELOMYZIDAE. (²⁵⁶).

Helomyza.

Fallen, Heteromyz., 3, 1820; Loew, Schl. Z. f. Ent. 1859, 17.

***apicalis** Loew, Centur. II, 86. — Distr. Columbia.

***assimilis** Loew, Centur. II, 87. — Huds. B. Terr.

- borealis** Bohemann, Ins. Spetsb. 573, 15; Holmgren, Ins. Spetsb. 35; Ins. Nordgroenl. 104. — Spitzbergen and Greenland.
- ***lateritia** Loew, Centur. II, 89. — Connecticut.
- ***longipennis** Loew, Centur. II, 90. — New York.
- ***plumata** Loew, Centur. II, 88. — New York.
- quinquepunctata** Say, J. Acad. Phil. III, 101; Compl. Wr. II, 86; Wiedemann, Auss. Zw. II, 588, 3. — Cow Island, Missouri River.
- tibialis** Zetterstedt, Ins. Lapp. 767; Staeger, Groenl. Antl., 366, 50; Holmgren, Ins. Nordgroenl. 104. — Lapland and Greenland.
- ***Zetterstedtii** Loew, Schles. Z. f. Ent. 1859, Helomyzidae 63. — North of Europe and North America (Loew *in litt.*).
- ***limbata** Thomson, Eugen. Resa, etc. 569. — California [There is an earlier *H. limbata* Walker, Loew *in litt.*].

Observation. Mr. Walker's species of *Helomyza* are:
fasciata Walker, List, etc. IV, 1094. — Nova Scotia.
lateralis Walker, l. c. IV, 1095. — North America.
tincta Walker, List, etc. IV, 1092. — Nova Scotia.

Scoliocentra.

Schles. Zeitschr. f. Ent. 1859, 43.

- ***fraterna** Loew, III, 51. — Sitka.
- ***helvola** Loew, II, 80. — Illinois.
 [There are two more species, as yet undescribed, in the collections]

Anorostoma.

Loew, Schles. Z. f. Ent. 1859, 47.

- ***marginata** Loew, Centur. II, 81. — Brit. North America.

Allophyla.

Loew, Schles. Z. f. Ent. 1859, 43.

- ***laevis** Loew, Centur. II, 85. — Brit. North America. [„hardly differs from the european *A. nigricornis* Meig., except in the coloring of the antennae“ Loew, l. c.].

Blepharoptera.

Loew, Schles. Z. f. Ent. 1859, 57.

Blepharoptera Macquart, Hist. Nat. Dipt. II, 412; 1835.

- ***biseta** Loew, Schl. Z. f. Ent. 1859, 62. — Europe and Sitka (Loew *in litt.*).
carolinensis R. Desvoidy, Myod 629, 11 (*Scatophaga*); referred here by R. Desvoidy in Ann. Soc. Ent.; 1841, p. 258, foot-note.
- ***cineraria** Loew, Schl. Z. f. Ent. 1859, 67. — Europe and British N. A.
Blepharoptera armipes Loew, Centur. II, 83 (Loew *in litt.*).
- ***defessa** O. Sacken, in Packard's: Cave fauna in Utah (Bulletin U. S. Geol. and Geogr. Survey, Vol. III, No. 1). — Kentucky. (287).
- ***discolor** Loew, Centur. X, 78. — White Mts., N. H.

geniculata Zetterstedt, Ins. Lapp. 767, 12 (*Helomyza*); Staeger, Groenl. Antl. 366, 49 (*id.*); Holmgren, Ins. Nordgroenl. 104. — North of Europe and Greenland.

iners Meigen, System. Besch. VI, 57, 22 (*Helomyza*); Loew, Schles. Z. f. Ent., 859, 63. — Europe and North America [see Loew, in Sillim. Journ. XXXVII, 318].

***leucostoma** Loew, Centur. III, 54. — Sitka.

***lutea** Loew, Centur. III, 52. — Sitka.

***pectinata** Loew, Centur. X, 79. — Texas.

***pubescens** Loew, Centur. II, 82. — Massachusetts.

***tristis** Loew, Centur. II, 84. — Lake Winnipeg.

Oecothoa.

Loew, Schles. Z. f. Ent. 1859, 54.

fenestralis Fallen, etc. compare Loew, l. c. — Europe; Siberia; North America (New York, Loew *in litt.*).

Tephrochlamys.

Loew, Schles. Z. f. Ent. 1859, 72.

***rufiventris** Meigen, System. Besch. VII, 58 (*Helomyza*); Loew, Schles. Z. f. Ent. 1859, 77. — Europe and Canada (Loew *in litt.*).

Heteromyza.

Fallen, Heteromyz. 1; 1820; Loew, Schles. Z. f. Ent. 1859, 70.

Observation. Whether the following species belong to *Heteromyza* in Loew's or even in Fallen's sense, is, of course, doubtful. According to Loew (Schles. Zeitschr. f. Ent. 1859, 9), *H. buccata* is no *Heteromyza* at all, but is related to the family *Phycodromidae*.

buccata Fallen, Meigen, etc. Walker, List, etc IV, 1088. — Europe and Nova Scotia (according to Walker).

eriphides Walker, l. c. 1088. — Huds. B. Terr.

flavipes Walker, l. c. 1089. — Huds. B. Terr.

fusca Macquart, Dipt. Exot. II, 3, 263, 3; Tab. XXV, f 12. — North America.

FAMILY SCIOMYZIDAE. ⁽²⁸⁸⁾

Sciomyza.

Fallen, Sciomyzidae 11; 1820.

***albocostata** Fallen, Sciomyz. 12, 3; Zetterstedt, Dipt. Scand. V, 2098; Schiner, Fauna Austr. II, 47. — Europe; North America [Loew in Sillim. Journ. XXXVII, 318].

***apicata** Loew, Zeitschr. f. Ges. Naturw. 1876, 331. — Fort Resolution, Huds. B. Terr.

***humilis** Loew, Zeitschr. f. Ges. Naturw. 1876, 330. — Texas.

***longipes** Loew, Zeitschr. f. Ges. Naturw. 1876, 328. — White Mts., New Hampshire.

- **luctifera* Loew, Centur. I, 71; Monogr. I, 107. — Pennsylvania.
- **nana* Fallen, Loew, Monogr. I, 104. — Europe; United States, Canada.
- **obtusa* Fallen, Loew, l. c. 105. — Europe, United States.
- **pubera* Loew, l. c. 106. — Middle States.
- **tenuipes* Loew, Centur. X, 80. — Middle States.
- **trabeculata* Loew, Centur. X, 81. — Texas.
- vittata* Haliday, Ent. Mag. 1833. — Europe and North America (Massachusetts; Loew *in litt.*).

obscuripennis Bigot, R. de la Sagra etc. 826. — Cuba.

Mr. Walker described four Sciomyzæ from North America; the three first are discussed by Mr. Loew in Monogr. I, 104:

antica Walker, Dipt. Saund. 400. — United States.

nigripalpus Walker, List, etc. IV, 1068. — Huds. B. Terr.

parallela Walker, Dipt. Saund. 401. — United States.

transducta Walker, Trans. Ent. Soc. N. Ser. V, 220. — North America.

Tetanocera.

Latreille, Genera Crust. et Ins. IV, 1809; *Tetanocerus* Duméril, 1801.

- **ambigua* Loew, Centur. V, 95. — Maine.
- **arcuata* Loew, Wien. Ent. Monatschr. III, 292; Monogr. I, 115. — Middle States.
- **clara* Loew, Monogr. I, 109. — New York.
- **combinata* Loew, Wien. Ent. Monatschr. III, 295; Monogr. I, 116. — United States and Canada.
- **costalis* Loew, Monogr. I, 118. — Illinois.
- **flavescens* Loew, Stett. Ent. Z. VIII, 123; Wien. Ent. Monatschr. III, 291; Monogr. I, 113. — Carolina (Lw.); Western New York (M. C. Z.; determ. by Loew *in litt.*, who suspects that *T. flavescens* is only a larger form of *arcuata*).
- **pallida* Loew, Wien. Ent. Monatschr. III, 294; Monogr. I, 113. — Middle States.
- **pictipes* Loew, Wien. Ent. Monatschr. III, 292; Monogr. I, 111. — Atlantic States and Canada; Bermudas.
- **plebeja* Loew, Monogr. I, 120. — Atlantic States and Canada.
- **plumosa* Loew, Stett. Ent. Z. VIII, 201; Wien. Ent. Monatschr. III, 296; Monogr. I, 121. — Middle and Northern States; Canada.
- Tetanocera vicina* Macquart, Dipt. Exot. II, 3, 180; Tab. XXIV, f. 7 [Lw.].
- Tetanocera Struthio* Walker, List, etc. IV, 1086 [Lw.].
- **rotundicornis* Loew, Centur. I, 70; Monogr. I, 123. — Brit. North America.
- **saratogensis* Fitch, Reports I, 63; Wien. Ent. Monatschr. III, 256; Monogr. etc. I, 119. — Atlantic States; Canada.
- **sparsa* Loew, Monogr. I, 117. — Middle States.
- **triangularis* Loew, Centur. I, 69; Monogr. I, 122. — Brit. North America.
- **valida* Loew, Monogr. I, 110. — New York; Quebec, Canada.

- pectoralis** Walker, Trans. Ent. Soc. N. Ser. V, 321. — Mexico.
 ***spiniornis** Loew, Centur. VI, 86. — Cuba.

Observation. The three remaining species, mentioned in my first Catalogue are:

Boscii R. Desvoidy, Myod. 690, 8 (*Pherbina*). — Carolina.
canadensis Macquart, Dipt. Exot. II, 3, 181, 4; Tab. XXIV, f. 5. — Canada.
guttularis Wiedemann, Auss. Zw. II, 584, 3; Macquart, Dipt. Exot. II, 3, 181, 3. — Montevideo (Wied.); Philadelphia (Macq.). The remarks of Dr. Loew on these species are reproduced in the note⁽²⁸⁹⁾.

Sepedon.

Latreille, Hist. Nat. des Crust. et des Ins. XIV, 305; 1804.

- ***armipes** Loew, Wien. Ent. Monatschr. III, 298; Monogr. I, 126. — Middle States.
 ***fuscipennis** Loew, Wien. Ent. Monatschr. III, 299; Monogr. I, 124. — Middle States.
 ***macropus** Walker, List, etc. IV, 1078; Monogr. I, 125. — Jamaica, Cuba.
 ***pusillus** Loew, Wien. Ent. Monatschr. III, 299; Monogr. I, 127. — Middle States.

Dryomyza.

Fallen, Sciomyz.; 1820.

- ***anilis** Fallen; Loew, Monogr. I, 128. — Europe and North America (Middle States).
convergens Walker, List, etc. IV, 983. — Nova Scotia.
 ***simplex** Loew, Monogr. I, 128. — Middle States.
maculiceps Walker, Trans. Ent. Soc. N. Ser. V, 319. — Mexico.

Actora.

Meigen, System. Besch. V, 403; 1826.

- ferruginea** Walker, List, etc. IV, 1066. — Nova Scotia.

FAMILY PSILIDAE.

Loxocera.

Meigen, Illiger's Magaz.; 1803. ⁽²⁹⁰⁾.

- ***collaris** Loew, Centur. IX, 97. — Distr. Columbia.
 ***cylindrica** Say, J. Acad. Phil. III, 98; Compl. Wr. II, 84; Wiedemann, Auss. Zw. II, 528. — Atlantic States.
 ***fallax** Loew, Centur. IX, 98. — Canada.
 ***pectoralis** Loew, Centur. VIII, 64. — Distr. Columbia.
 ***pleuritica** Loew, Centur. VIII, 65. — New York; Connecticut.
quadrilinea Walker, Trans. Ent. Soc. N. Ser. V, 329. — United States.

Psila.

Meigen, Illiger's Magaz. II; 1803.

bicolor Meigen, System. Besch. V, 358. — Europe and North America. (Sitka; Lake Winnipeg; Loew, in Sillim. J. XXXVII, 318 asserts the specific identity.)

* **bivittata** Loew, Centur. VIII, 67. — Connecticut, Quebec, Canada.

* **collaris** Loew, Centur. VIII, 68. — Connecticut.

* **dimidiata** Loew, Centur. VIII, 69. — Red River of the North.

* **lateralis** Loew, Wien. Ent. Monatschr. IV, 81, 5; Centur. VIII, 66. — Distr. Columbia.

* **levis** Loew, Centur. VIII, 71. — White Mts., N. H.

* **sternalis** Loew, Centur. VIII, 70. — Middle States.

Chyliza.

Fallen, Opomyz. 6; 1820.

* **apicalis** Loew, Wien. Ent. Monatschr. IV, 82, 6; Centur. VIII, 72. — Distr. Columbia.

metallica Walker, List, etc. IX, 1045. — Huds. B. Terr.

nigroviridis Walker, Trans. Ent. Soc. N. Ser. V, 330. — United States.

* **notata** Loew, Centur. IX, 99. — Distr. Columbia.

FAMILY MICROPEZIDAE.

Calobata.

Meigen, Illiger's Magaz.; 1803; *Ceyx* Duméril, Exposit. etc.; 1801.

* **Alesia** Walker, List, etc. IV, 1048. — Huds. B. Terr. (Walk.); New England (M. C. Z.).

* **antennipennis** Say, J. Acad. Phil. III, 97, 1; Compl. Wr. II, 83 (*C. antennaeipes*); Wiedemann, Auss. Zw. II, 546, 14. — Pennsylvania (Say); Maryland, Kentucky (M. C. Z.).

* **geometra** R. Desvoidy, Myod. 736, 1 (*Neria*). — Carolina (R. D.); Texas, Kentucky (M. C. Z.).

* **lasciva** Fabricius, Suppl. 574, 111 (*Musca*); System. Antl. 262; Wiedemann, Auss. Zw. II, 535; Schiner, Dipt. of the Novara etc. 253 (gives a fuller description). — Cayenne (Fabr.); Cuba (Jaennicke, Neue Exot. Dipt. 4); New York (M. C. Z.).

Calobata albimana Macquart, Dipt. Exot. II, 3, 245; Tab. XXXIII, f. 3. — Philadelphia; Cuba; Java; Port Jackson, Australia [Schiner, Novara, etc. 253].

? *Calobata valida* Walker, Dipt. Saund., 390. — United States.

Calobata ruficeps Guérin, Iconogr. etc. III, 553; Tab. 103, f. 7. — Cuba.

Taenioptera trivittata Macquart, Hist. Nat. Dipt. II, 491, 1; Tab. XX, f. 9. — North America.⁽²⁹¹⁾

* **nebulosa** Loew, Centur. VII, 89. — Florida.

**pallipes* Say, J. Acad. Phil. III, 97, 2; Compl. Wr. II, 84; Wiedemann, Auss. Zw. II, 548, 3 (*Micropeza*). — Missouri (Say); Huds. B. Terr. (M. C. Z.).

**univitta* Walker, List, etc. IV, 1049. — New York.

Aloa Walker, List, etc. IV, 1053 — Jamaica.

erythrocephala Fabricius, System. Antl. 260, 1; Wiedemann, Auss. Zw. II, 532, 1. — Brazil (Fabr.); Mexico (Walker, List, etc. IV, 1055).

fasciata Fabricius, System. Ent. 781, 43 (*Musca*); Ent. System. IV, 336, 102 (*id.*); System. Antl. 262, 9; Wiedemann, Auss. Zw. II, 536, 7. — West Indies.

**maculosa* Loew, Centur. VII, 88. — Cuba.

**placida* Loew, Centur. VII, 90. — Cuba.

NB. *C. angulata* Loew, Centur. VII, 87 and *C. platytenema* Loew, Centur. VII, 86, are from New Granada.

Observation. Mr. R. Desvoidy, Myod. 736—38 describes four species of a genus *Neria*, which he identifies with *Nerius* Fabricius. One of these species, which I believe to have recognized, is a *Calobata* (*C. gracilis*, see above). It is very probable, that the other three species likewise are *Calobatae* and have nothing to do with the genus *Nerius* Fab., as defined by Wiedemann, Auss. Zw. II, 549:

<i>Neria atripes</i> R. Desvoidy,	} all from Carolina.
„ <i>carolinensis</i> R. Desvoidy,	
„ <i>longipes</i> (Fab.) R. Desvoidy,	

The descriptions are very short, and it seems probable, judging from them, that all three apply to differently colored individuals of the same species.

Micropeza.

Meigen, Illiger's Magaz.; 1803. (292).

**producta* Walker, List, etc. IV, 1056. — Georgia (Walk.); Cuba (Loew, Berl. Z. 1868, 167).

divisa Wiedemann, Auss. Zw. II, 540 (*Calobata*). — Mexico.

pectoralis Wiedemann, Auss. Zw. II, 540 (*Calobata*). — Mexico.

[These two species are placed here in accordance with Mr. Loew's statement in the Berl. Ent. Z. 1868, 393, 394.]

Lissa.

Meigen, System. Besch. V, 370 (1826); this genus is provisionally placed in this family in accordance with Loew, Monogr. I, 39.

Lissa varipes Walker, List, etc. IV, 1046. — Ohio, is *Cordylura bimaculata* Loew. — The two other species, *L. carbonaria* (New York), and *cornuta* (Huds. B. Terr.), both l. c. 1047, do not seem to belong to *Lissa* at all.

FAMILY ORTALIDAE. ⁽²³⁵⁾.

SECTION I. PYRGOTINA.

Pyrgota.

Wiedemann, Auss. Zw. II, 581; 1830; Loew, Monogr. III, 72.

**filiola* Loew, Zeitschr. f. Ges. Naturw. Dec. 1876, 332. — Texas.

Pyrgota debilis O. Sacken, Western Dipt. 343. — Kentucky.

fenestrata Macquart, Dipt. Exot. Suppl. 4, 281; Tab. XXVI, f. 1 (*Oxycephala*). — North America [Macquart gives no locality, but says: „same locality as *Oxycephala fuscipennis*“, which is *Pyrgota undata*]. ⁽²³⁴⁾.

pterothorina Gerstaecker, Stett. Ent. Z. XXI, 190; Tab. II, f. 6; Loew, Monogr. III, 81. — Carolina.

**undata* Wiedemann, Auss. Zw. II, 581; Tab. X, f. 6; Macquart, Hist. Nat. Dipt. II, 423; Tab. XVIII, f. 23; Harris, Ins. Injur. to Veget. 3^d edit. 610 f. 268 (*Sphecomomyia*); Gerstaecker, Stett. Ent. Z. XXI, 188; Tab. II, f. 7 and 7^a; Loew, Monogr. III, 77. — Not rare especially in the northern States, from Massachusetts to Kansas. (A specimen exactly like *P. undata* is labelled „Brazil“ in the Vienna Museum. This occurrence requires confirmation, like that of *Bittacomorpha claripes*, recorded from Brazil in the same Museum.)

Myopa nigripennis Gray, Griffith's Animal Kingdom, Tab. 125, f. 5.

Oxycephala fuscipennis Macquart, Dipt. Exot. II, 3, 198; Tab. XXVI, f. 6 [!]. — No locality. (Macq. 4^e Suppl. 281, America.)

**valida* Harris, Ins. Injur. to veget. 3^d edit. 611 (*Sphecomomyia*). — Northern and Middle States. ⁽²³⁵⁾.

Pyrgota millipunctata Loew, Neue Beitr. II, 22, 50; Monogr. III, 74.

?*Oxycephala maculipennis* Macquart, Dipt. Exot. Suppl. I, 210; Tab. XVIII, f. 12.

vespertilio Gerstaecker, Stett. Ent. Z. XXI, 189; Tab. II, f. 8; Loew, Monogr. III, 79. — Carolina.

Toxotrypana.

Gerstaecker, Stett. Ent. Z. XXI, 191; 1860.

curvicauda Gerstaecker, Stett. Ent. Z. XXI, 194; Tab. II, f. 9. — West Indies (Island St. Jean, in the small Antilles).

SECTION II. PLATYSTOMINA.

Amphienephes.

Loew, Monogr. III, 83; 1873.

**pertusus* Loew, Monogr. III, 84; Tab. VIII, f. 1. — Distr. Columbia; Connecticut; Carolina; Texas.

Himeroëssa.

Loew, Monogr. III, 85; 1873.

**pretiosa* Loew, Monogr. III, 85; Tab. VIII, f. 2. — Cuba.

Rivellia.

R. Desvoidy, Myod. 729; 1830; Loew, Monogr. III, 44 and 87.

Boscai R. Desvoidy, Myod. 730, 3. — Carolina [compare Loew, Monogr. III, 93, Obs. 2].

* **conjuneta** Loew, Monogr. III, 88; Tab. VIII, f. 3. — Maryland.

* **flavimana** Loew, Monogr. III, 92; Tab. VIII, f. 7. — Nebraska.

(?) *Herina metallica* v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 154; Tab. V, f. 10. — Wisconsin [Mr. Loew, in the Zeitschr. f. Ges. Naturw. XXXVI, 116 identified this species with *R. viridulans*, a synonymy, which he gives up in Monogr. Vol. III].

* **micans** Loew, Monogr. III, 94. — Texas.

* **pallida** Loew, Monogr. III, 95; Tab. VIII, f. 8. — Distr. Columbia.

* **quadrifasciata** Macquart, Hist. Nat. Dipt. II, 433, 8 (*Herina*); Loew, Monogr. III, 90; Tab. VIII, f. 5. — Nebraska.

* **variabilis** Loew, Monogr. III, 91; Tab. VIII, f. 6. — Distr. Columbia(?).

* **viridulans** R. Desvoidy, Myod. 729, 2; Loew, Monogr. III, 88; Tab. VIII, f. 4. — New York, Georgia, Distr. Columbia.

Trypeta quadrifasciata (Harris), Walker, List, etc. IV, 993, f. 5 [Lw.].
Herina rufitarsis Macquart, Dipt. Exot. 5^e Suppl. 123, 7; Tab. VII, f. 5 [Lw.].

Tephritis melliginis Fitch, First Report 65. — United States [Lw.].

NB. For *Ortalis Ortoeda* Walker, quoted by Mr. Loew among the synonyms, see note (²⁹⁶).

Stenopterina.

Loew, Monogr. III, 96; l. c. 22; modified from *Senopterina* Macquart, Hist. Nat. Dipt. II, 453; 1835.

* **caerulescens** Loew, Monogr. III, 97. — Texas.

Herina splendens Macq. Suppl. I, 209. — Columbia. (²⁹⁷).

mexicana Macquart, Dipt. Exot. II, 3, 208; Tab. 29, f. 2 (*Herina*); compare also Loew, Monogr. III, 98, *Observation* 2, where this species is, by mistake called *metallica*. — Macquart's description is reproduced in Monogr. III, 199. — Mexico.

Myrmecomya.

R. Desvoidy, Myod. 721; 1830; Loew, Monogr. III, 99.

* **myrmecoides** Loew, Wien. Ent. Monatschr. IV, 83 (*Cephalia*); Monogr. III, 100; Tab. VIII, f. 9. — Distr. Columbia.

SECTION III. CEPHALINA.**Tritoxa.**

Loew, Monogr. III, 102; 1873.

* **cuneata** Loew, Monogr. III, 107; Tab. VIII, f. 11. — Nebraska.

* **flexa** Wiedemann, Auss. Zw. II, 483, 11 (*Trypeta*); Loew, Monogr. III, 102; Tab. VIII, f. 10. — Northern Red River; Illinois.

Trypeta arcuata Walker, Dipt. Saund. 333; Tab. VIII, f. 3 [Loew].

**incurva* Loew, Monogr. III, 104; Tab. VIII, f. 12. — Illinois, Kansas, Distr. Columbia, Texas.

Camptoneura.

Macquart, Dipt. Exot. II, 3, 200; 1843; Loew, Mon. III, 108.

**pieta* Fabricius Ent. System. IV, 355 (*Musca*); System. Antl. 330 (*Dietya*); Wiedemann, Auss. Zw. II, 489 (*Trypeta*); Macquart, Dipt. Exot. II, 3, 201; Tab. 27, f. 4; Loew, Monogr. III, 109; Tab. VIII, f. 13. — United States.

Tephritis conica Fabricius, System. Antl. 318, 10 [Lw.].

Delphinia thoracica R. Desvoidy, Myod. 720, 1 [Lw.].

Urophora nigriventris Macquart, Dipt. Exot. 5^e Suppl. 124, 18. (295).

Diacrita.

Gerstaecker, Stett. Ent. Z. XXI, 195; 1860; Loew, Monogr. III, 111.

**aemula* Loew, Monogr. III, 114; Tab. VIII, f. 15. — California.

**costalis* Gerstaecker, Stett. Ent. Z. XXI, 197; Tab. II, f. 10, and 10a; Loew, Monogr. III, 111; Tab. VIII, f. 14. — Mexico (Oaxaca).

Carlottaemyia moerens Bigot, Bull. Soc. Ent. de France XXVI, 1877 [Synonymy by Mr. Bigot, l. c. 1877, CXXXII].

Idana.

Loew, Monogr. III, 115; 1873.

**marginata* Say, J. Acad. Phil. VI, 183, 2; Compl. Wr. II, 368 (*O. t-lis*); Loew, Monogr. III, 115; Tab. VIII, f. 16. — Virginia; Pennsylvania.

SECTION IV. ORTALINA.

Tetropismenus.

Loew, Zeitschr. f. Ges. Naturw. Dec. 1876, 333.

**hirtus* Loew, l. c. — San Francisco.

Tetanops.

Fallen, Dipt. Suec. Ortalidae; 1820; Loew, Monogr. III, 119.

**integra* Loew, Monogr. III, 121; Tab. VIII, f. 18. — Illinois.

**luridipennis* Loew, Monogr. III, 119; Tab. VIII, f. 17. — Nebraska.

Tephronota.

Loew, Zeitschr. f. d. Ges. Naturw. 1868, 6; Monogr. III, 122; 1873.

**humilis* Loew, Monogr. etc. III, 121; Tab. VIII, f. 24. — New York, Virginia, Texas; Wisconsin (v. d. Wulp).

Herina ruficeps v. d. Wulp, Tijdschr. v. Ent. IX, 156; Tab. V, f. 11. [Loew]. (299).

(?) *Trypeta Narytia* Walker, List, etc. IV, 1020 (ex parte). — Florida. (300).

Ceroxys.

Macquart, Hist. Nat. Dipt. II, 437; 1835; Loew, Monogr. III, 125.

- * *canus* Loew, Monogr. III, 129; Tab. VIII, f. 22; Berl. Ent. Z. II, 374 (*Ortalis*). — Yukon River, Alaska; Nebraska (the same or a very similar species occurs in Europe).
- * *obscuricornis* Loew, Monogr. III, 126; Tab. VIII, f. 20. — Nebraska.
- * *ochricornis* Loew, Monogr. III, 126; Tab. VIII, f. 21. — Northern Wisconsin River.
- * *similis* Loew, Monogr. III, 127; Tab. VIII, f. 23. — Connecticut; Quebec, Canada (resembles very much the european *C. crassipennis*).

Anacampta.

Loew, Zeitschr. f. d. Ges. Naturw. 1868, 7; Monogr. III, 129; 1873.

- * *latiuscula* Loew, Monogr. III, 130; Tab. VIII, f. 19 — California.
- * *pyrrhocephala* Loew, Zeitschr. f. Ges. Naturw. 1876, 335. — California.

SECTION V. PTEROCALLINA.**Pterocalla.**

Rondani, Esame di varie specie d'insetti ditteri Braziliani; Torino, 1848;
Loew, Monogr. III, 132. (³⁰⁵).

strigula Loew, Monogr. III, 133; Tab. VIII, f. 30. — Georgia (type in the Berl. Museum).

Stictocephala.

Loew, Monogr. III, 134; 1873.

- * *eribellum* Loew, Monogr. III, 134; Tab. VIII, f. 26 — Nebraska.
- * *eribrum* Loew, Monogr. III, 135; Tab. VIII, f. 25 — Middle States.
- * *corticalis* (Fitch) Loew, Monogr. III, f. 136; Tab. VIII, f. 28. — New York.
- * *vau* Say, J. Acad. Phil. VI, 184, 4; Compl. Wr. II, 369 (*Ortalis*); Loew, Monogr. III, 138; Tab. VIII, f. 29. — Atlantic States.

Callopietria.

Loew, Monogr. III, 140; 1873.

- * *annulipes* Macquart, Dipt. Exot. 5^e Suppl. 121 (*Platystoma*); Loew, Monogr. III, 141; Tab. VIII, f. 27. — Atlantic States.

Myennis.

R. J esvoidy, Myod. 717, 1830; Loew, Monogr. III, 142.

scutellaris Wiedemann, Auss. Zw. II, 484 (*Trypeta*); Loew, Monogr. I, 92 Tab. II, f. 26, 27 (*Trypeta?*); Monogr. III, 143. — Mexico.

SECTION VI. ULIDINA.

Oedopa.

Loew, Berl. Ent. Z. 1867, 287; Monogr. III, 146.

- * **capito** Loew, Berl. Ent. Z. XI, 287; Tab. II, f. 2; Monogr. III, 146; Tab. IX, f. 1-3. — Nebraska.

Notogramma.

Loew, Berl. Ent. Z. 1867, 289; Monogr. III, 148.

- * **stigma** Fabricius, Ent. System. Suppl. 563, 72 (*Musca*); System. Antl. 303, 96 (*id.*); Wiedemann, Auss. Zw. II, 565, 1 (*Ulidia*); Loew, Monogr. III, 148; Tab. IX, f. 5. — Cuba.

Notogramma cinctiformis Loew, Berl. Ent. Zeitschr. XI, 289; Tab. II, f. 3 [Loew].

Dacus obtusus Fabricius, System. Antl. 278, 30 [Loew].

Scoptera.

Scioptera, Kirby, Introd. to Ent. II, 305; 1817 (Letter XXIII); also Stephens, Catalogue (1829); defined for the first time and modified in *Scoptera* by Loew, Berl. Ent. Z. 1867, 295; also in Monogr. III, 151.

Myodina Rob. Desvoidy, Essai etc. 1830.

- * **colon** (Harris) Loew, Berl. Ent. Z. XI, 296; Tab. II, f. 6; Monogr. III, 152; Tab. IX, f. 6. — Illinois.
- * **vibrans** Linné, Meigen, etc. (*Ortalis*). — Europe and the Eastern United States and Canada (Quebec). [The differences between the two species are explained by Loew in Monogr. III, 153; the occurrence of *S. vibrans* in N. A. is mentioned by O. Sacken in a note at the end of volume, immediately after the plates].

Acrosticta.

Loew, Berl. Ent. Z. 1867, 293; also Monogr. III, 151.

- * **dichroa** Loew, Berl. Ent. Z. 1874, 384. — San Francisco.

Ulidia.

Meigen, System. Besch. V, 385; 1826; compare Loew, Monogr. III, 63.

- * **rubida** Loew, Zeitschr. f. Ges. Naturw. 1876, 337. — California.

Euxesta.

Loew, Berl. Ent. Z. 1867, 297; Monogr. III, 153. (⁵⁰⁵).

- * **nitidiventris** Loew, Monogr. III, 157. — Texas.
- * **notata** Wiedemann, Auss. Zw. II, 462, 9 (*Ortalis*); Loew, Berl. Ent. Z. XI, 300; Tab. II, f. 9; Monogr. III, 156; Tab. IX, f. 9. — Atlantic States (New York, Illinois, etc.).
- * **scoriacea** Loew, Zeitschr. f. Ges. Naturw. 1876, 336. — Texas.
- * **abdominalis** Loew, Berl. Ent. Z. XI, 307; Tab. II, f. 15; Monogr. III, 164; Tab. IX, f. 15. — Cuba.

- alternans** Loew, Berl. Ent. Z. XI, 307; Tab. II, f. 16; Monogr. III, 165; Tab. IX, f. 16. — Brazil? Cuba?
- ***annonae** Fabricius, Ent. System. IV, 358, 189 (*Musca*); System. Antl. 320, 19 (*Tephritis*); Wiedemann, Auss. Zw. II, 463 (*Ortalis*); Loew, Berl. Ent. Z. XI, 305; Tab. II, f. 13; Monogr. III, 162; Tab. IX, f. 13; compare also *Amelhyssa annonae* in Schiner, Novara, 233. — Cuba (South America, Schiner). (³⁰¹).
Urophora quadricittata. Macquart, Hist. N. Dipt. II, 456 [Lw.].
- ***binotata** Loew, Berl. Ent. Z. XI, 304; Tab. II, f. 12; Monogr. III, 160; Tab. IX, f. 12. — Cuba.
- costalis** Fabricius, Ent. System. IV, 360, 196 (*Musca*); Syst. Antl. 278 (*Dacus*); Wiedemann, Auss. Zw. II, 464 (*Ortalis*); Loew, Berl. Ent. Z. XI, 301; Tab. II, f. 10; Monogr. III, 158; Tab. IX, f. 10. — West Indies.
Dacus aculeatus Fabricius, System. Antl. 275 [Lw.].
- ***eluta** Loew, Berl. Ent. Z. XI, 312; Tab. II, f. 19; Monogr. III, 168; Tab. IX, f. 18. — Cuba.
- ***pusio** Loew, Loew, Berl. Ent. Z. XI, 299; Tab. IX, f. 8; Monogr. III, 155; Tab. IX, f. 8. — Cuba.
- ***quaternaria** Loew, Berl. Ent. Z. XI, 302; Tab. II, f. 11; Monogr. III, 159; Tab. IX, f. 11. — Cuba.
- ***spoliata** Loew, Berl. Ent. Z. XI, 298; Tab. II, f. 7; Monogr. III, 154; Tab. IX, f. 7. — Cuba.
- ***stigmatias** Loew, Berl. Ent. Z. XI, 310; Tab. II, f. 18; Monogr. III, 166; Tab. IX, f. 17. — Cuba; Brazil.
- ***Thomae** Loew, Berl. Ent. Z. XI, 306; Tab. II, f. 14; Monogr. III, 163; Tab. VIII, f. 14. — St. Thomas.

Chaetopsis.

- Loew, Berl. Ent. Z. XI, 315; 1867; Monogr. III, 169.
- ***aenea** Wiedemann, Auss. Zw. II, 462 (*Ortalis*); Loew, Berl. Ent. Z. XI, 315; Tab. II, f. 21; Monogr. III, 170; Tab. IX, f. 19. — Atlantic States; Canada; Cuba; the Bermudas.
Ortalis trifasciata, Say, Journ. Acad. Phil. VI, 184; Compl. Wr. II, 368 [Lw.].
Urophora fulcifrons Macquart, Dipt. Exot. 5e Suppl., 125; Tab. VII, f. 8 (Lw.).
Trypeta Narytia Walker, List, etc. IV, 1020; synonym. ex parte [!]. — Florida. (³⁰⁰).
Ortalis Massyla Walker, List, etc. IV, 992; reproduced in Monogr. III, 199 [!]. — North America.
Ortalis Ortoeda Walker, List, etc. IV, 992. — North America. (³⁰⁶).
Trypeta (*Aciura*) *aenea* v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 157; Tab. V, f. 12–14 [Lw.].
- ***debilis** Loew, Berl. Ent. Z. XI, 318; Tab. II, f. 22; Monogr. III, 172; Tab. IX, f. 20. — Cuba.

Stenomyia.

Loew, Berl. Ent. Z. 1867, 320; Monogr. III, 173.

- ***tenuis** Loew, Berl. Ent. Z. XI, 321; Tab. II, f. 24; Monogr. III, 174; Tab. IX, f. 21. — Georgia; Texas.

Eumetopia.

Macquart, Dipt. Exot. 2^e Suppl. 87; 1847; Loew, Berl. Ent. Z. 1867, 322; Monogr. III, 175.

- ***rufipes** Macquart, Dipt. Exot. 2^e Suppl. 88; Tab. VI, f. 2; Loew, Berl. Ent. Z. XI, 322; Tab. II, f. 25; Monogr. III, 175; Tab. IX, f. 22. — Distr. Columbia; Texas.

- ***varipes** Loew, Centur. VI, 87; Berl. Ent. Z. XI, 323; Tab. II, f. 26; Monogr. III, 176; Tab. IX, f. 23. — Cuba.

SECTION VII. RICHARDINA.**Coniceps.**

Loew, Monogr. III, 177; 1873; compare also the same, Besch. Europ. Dipt. III, 292.

- ***niger** Loew, Monogr. III, 178. — Texas.

Stenomacra.

Loew, Monogr. III, 180; 1873.

- ***Guerini** Bigot, in R. de la Sagra, etc. 822; Tab. XX. f. 9 (*Sepsis*); Loew, Monogr., etc. III, 180; Tab. IX, f. 25. — Cuba.

Neoidiotypa.

Idiotypa Loew, Monogr. III, 183; 1873. (³⁰²).

- ***appendiculata** Loew, Monogr. III, 183; Tab. IX, f. 26. — Cuba.

Steneretma.

Loew, Monogr. III, 186; 1873.

- ***laticauda** Loew, Monogr. III, 187. — Texas.

Coelometopia.

Coilometopia Macquart, Dipt. Exot. 2^e Suppl. 91, 1847; Loew, Monogr. III, 188.

- bimaculata** Loew, Monogr. III, 189. — Cuba.

Observation. *Hemixantha spinipes* Loew and *Melanoloma affinis* Loew, described in Monogr. III, 190—193, are from Brazil.

Epiplatea.

Loew, Berl. Ent. Z. 1867, 324; Monogr. III, 194.

- ***erosa** Loew, Berl. Ent. Z. XI, 325; Tab. II, f. 25; Monogr. III, 194; Tab. IX, f. 24. — Cuba.

- Ortalide** described by previous writers, but not known to Mr. Loew, when he repared his Monograph. The descriptions are reproduced in the Appendix to Monographs etc. Vol. III, 197—203, and discussed by Mr. Loew (except *Ortalis platystoma* Thomson, which was added by me). I reproduce Dr. Loew's comments, together with my remarks on the original types seen by me.
- Ortalis ligata** Say, J. Acad. Phil. VI, 83; Compl. Wr. II, 368. — Mexico. [Probably *Rivellia*. — Lw].
- Meckelia philadelphia** R. Desvoidy, Myod. 715. — Philadelphia. [Probably *Ceroxys* or *Anacampta*. — Lw.].
- Ortalis basalis** Walker, Dipt. Saund., 373. — United States. [Not *Ceroxys*, as Walker suggests; perhaps an *Ulidina*. — Lw.] I could not find it in the Brit. Mus.; the *Ortalis basalis* which I saw there, is from Tasmania.
- Ortalis Massyla** Walker, List, etc. IV, 992. — North America. [Seems to be an *Euxesta*. — Lw.]. I took it for *Chaetopsis aenea*.
- Ortalis (?) diopsides** Walker, List, etc. IV, 995. — Huds. B. Terr. [Belongs perhaps to the *Ulidina*. — Lw.].
- Ortalis (?) costalis** Walker, List, etc. IV, 995. — Huds. B. Terr. [Probably likewise an *Ulidina*? — Lw.]. Represented in the Brit. Mus. by a fragment without a head, and with only one wing; looks like *Scpsis*.
- Ortalis bipars** Walker, Trans. Ent. Soc. N. Ser. V, 326. — United States. (I could not find it in the Brit. Mus.).
- Bricinnia flexivitta** Walker, Trans. Ent. Soc. N. Ser. V, 324. — Mexico. (I did not find this species in the Brit. Mus.).
- Urophora interrupta** Macquart, Hist. Nat. Dipt. II, 459. — North America. [Is a *Rivellia* of difficult interpretation. — Lw., Monogr. III, 337, 32.]
- Urophora antillarum** Macquart, Dipt. Exot. 4e Suppl. Tab. XXVI, f. 17. — West Indies. [Almost undoubtedly an *Ulidina*. — Lw.]. The typical specimen in Mr. Bigots collection is an exceedingly soiled, hardly recognizable specimen, but looks very much like an *Euxesta*.
- Ulidia fulvifrons** Bigot in R. de la Sagra, etc. 826. — Cuba. [Not an *Ulidia*; may belong to the *Ulidina*. — *Ulidia metallica*, described in the same place belongs to the *Agromyzidae*. — Lw.]. I have not seen the specimen in Mr. Bigots collection.
- Ortalis platystoma** Thomson, Eugen. Resa etc. 572. — Panama.

FAMILY TRYPETIDAE. ⁽³⁰³⁾.

Trypeta.

Meigen, in Illiger's Magaz. II, 1803.

Subgenus Hexachaeta.

Loew, Monogr. III, 219; Observ. 2; 1873.

- * *eximia* Wiedemann, Auss. Zw. II, 477; Loew, Monogr. etc III, 216. — Brazil; Mexico.

Tephritis fasciventris Macquart, Dipt. Exot. 4^e Suppl. 291; Tab. XXVII, f. 3 [Lw.].

Subgenus *Acrotoxa*.

Loew, Monogr. III, 227—231; 1873.

Anastrepha, Schiner, Novara etc. 263, 1868. (³⁶⁴).

Leptoxyla, Macquart, Hist. Nat. Dipt. II, 452, 1835.

Leptoxys, Macquart, Dipt. Exot. II, 3, 216.

amabilis Loew, Monogr. III, 219. — Mexico.

* *fraterculus* Wiedemann, Auss. Zw. II, 524 (*Dacus*); Loew, Monogr. III, 222; Tab. X, f. 6. — Cuba, Brazil, New Granada, Peru.

Trypeta unicolor Loew, Monogr. I, 70; Tab. II, f. 6 [Lw.].

* *ludens* Loew, Monogr. III, 223; Tab. XI, f. 19. — Mexico.

* *suspensa* Loew, Monogr. I, 69; Tab. II, f. 5; *ibid.* III, 219; Tab. X, f. 5. — Cuba (Loew); South America, Schiner, Novara etc. 263.

* *tricincta* Loew, Monogr. III, 225. — Hayti.

Observation. *Trypeta obliqua* Macquart, *Ocesia* Walker, and perhaps *Acidusa* Walker, all from North America, belong to the present subgenus (for the full quotations, see at the end of the genus *Trypeta*).

Five Brazilian *Acrotoxæ* are described and figured by Mr. Loew in Monogr. III, 229—230; Tab. XI, f. 20—24: *parallela*, *hamata*, *integra*, *consobrina*, *pseudo-parallela*.

Subgenus *Stenopa*.

Loew, Monogr. III, 234; 1873.

* *vulnerata* Loew, Monogr. III, 232. — Massachusetts.

Subgenus *Acidia*.

R. Desvoidy, Myod. 720; 1830; Loew, Europ. Bohrfiegen, 34; 1862.

* *fratria* Loew, Monogr. I, 67; Tab. II, f. 4; Monogr. III, 235; Tab. X, f. 4. — Atlantic States.

(?) *Trypeta liogaster* Thomson, Eugen. Resa, 578, 251. — California [Lw.].

* *fausta* O. Sacken, Western Diptera, 346. — Alpine Region of Mt. Washington, N. H.

* *suavis* Loew, Monogr. I, 75; Tab. II, f. 10; *ibid.* III, 235; Tab. X, f. 10. — Middle States.

Subgenus *Epochra*.

Loew, Monogr. III, 233; Observ., 1873.

* *canadensis* Loew, Monogr. III, 235. — Canada, Maine.

Subgenus *Straussia*.

Strausia Rob. Desvoidy, Myod. 718; 1830; Loew, Monogr. III, 243.

* *longipennis* Wiedemann, Auss. Zw. II, 483; Loew, Monogr. I, 65; *ibid.* III, 238; Tab. X, f. 2, 3. — Atlantic States; Colorado O. Sacken Western Dipt. 345).

Strauzia armata R. Desvoidy, Myod. 719, 2 (♂). [Lw.].

Strauzia incruis R. Desvoidy, Myod. 718, 1 (♂). [Lw.].

Tephritis trimaculata Macquart, Dipt. Exot. II, 3, 226, 8; Tab. XXXI, f. 3. [Lw.].

Trypeta cornigera Walker, List, etc. IV, 1010. [Lw.].

Trypeta cornifera Walker, List, etc. IV, 1011. [Lw.].

Subgenus Zonosema.

Loew, Europ. Bohrfliegen; 1862.

**basiolum* O. Sacken, Western Diptera, 348. — Massachusetts.

Subgenus Spilographa.

Loew, Europ. Bohrfliegen, 39; 1862.

**electa* Say, Journ. Acad. Phil. VI, 185, 1; Compl. Wr. II, 369; Loew, Monogr. I, 71, 6; Tab. II, f. 7; Monogr. III, 244; Tab. X, f. 7. — Florida, Kansas.

**flavonotata* Macquart, Dipt. Exot. 5^e Suppl. 125; Tab. VII, f. 9 (*Tephritis*); Loew, Monogr. III, 245. — Baltimore (Macq.); Yukon River, Alaska (Lw.).

Subgenus Oedicarena.

Loew, Monogr. III, 247; Observ.; 1873.

tetanops Loew, Monogr. III, 245; Tab. XI, f. 15. — Mexico.

**persuasa* O. Sacken, Western Diptera, 344. — Colorado.

Subgenus Peronyma.

Loew, Monogr. III, 250; Observ. 2; 1873. (³⁰⁵).

sarcinata Loew, Centur. II, 73; Monogr. III, 247; Tab. XI, f. 16. — South Carolina.

(?) *Tephritis quadrifasciata* Macquart, Dipt. Exot. II, 3, 223; Tab. XXX, f. 8. — Georgia [Lw.].

Subgenus Plagiotoma.

Loew, Monogr. III, 252; Observ. 2; 1873.

**obliqua* Say, J. Acad. Phil. VI, 186, 3; Compl. Wr. II, 370; Loew, Monogr. I, 99 and III, 251; Tab. XI, f. 14. — Pennsylvania; Indiana; Texas; Schiner, Novara, etc. 267, has it from Brazil.

**discolor* Loew, Monogr. I, 64; Tab. II, f. 1; ibid. III, 250; Tab. X, f. 1. — Cuba.

Observation. *Plagiotoma biseriata*, a Brazilian species, is described by Mr. Loew in Monogr. III, 252.

Subgenus Trypeta.

Loew, Europ. Bohrfliegen, 51; 1 62.

**palposa* Loew, Monogr. I, 74; Tab. II, f. 9; Monogr. III, 253; Tab.

X, f. 9. — Northern Wisconsin River (Lw.); compare O. Sacken, Western Diptera, about the specimens from Colorado.

- * *florescentiae* Linné, Meigen, etc.; Loew, Monogr. III, 254. — Europe and North America (Canada).

Subgenus *Oedaspis*.

Loew, Europ. Bohrfliegen, 46; 1862.

- * *atra* Loew, Centur. II, 74; Monogr. III, 256; Tab. XI, f. 17. — New York; Mexico.
 * *gibba* Loew, Monogr. III, 260. — Texas.
 * *penelope* O. Sacken, Western Diptera, 346. — Western New York.
 * *polita* Loew, Monogr. I, 77; Tab. II, f. 12; *ibid.* III, 257; Tab. X, f. 12. — Washington; New York; Connecticut; Mississippi.

Observation. *Oedaspis nigerrima* Loew, from Brazil, is described in Monogr. III, 258; Tab. XI, f. 18.

Subgenus *Rhagoletis*.

Loew, Europ. Bohrfliegen, 44; 1862; compare also Monogr. III, 267.

- * *cingulata* Loew, Monogr. I, 76; Tab. II, f. 11; Monogr. III, 263; Tab. X, f. 11. — Middle States; Long Branch, N. J.
 * *pomonella* Walsh, First Rep. Illin. etc. 29—33; fig. 2. (This description is reproduced in the article: The apple-worm and apple-maggot, in the Amer. Journ. of horticulture, Boston, Dec. 1867.) Loew, Monogr. III, 265. — Illinois.
 * *tabellaria* Fitch, First Rep. 66; Loew, Monogr. III, 263. — New York; Canada.

Subgenus *Aciura*.

Rob. Desvoidy, Myod. 773; 1830; Loew, Europ. Bohrfliegen, 29; 1862.

- * *insecta* Loew, Monogr. I, 72; Tab. II, f. 8; Monogr. III, 268; Tab. X, f. 8. — Cuba; (Florida?); Schiner, Novara etc. 265 has the same species from South America.

Observation. *Aciura phoeniceura* Loew, from Brazil is described Monogr. III, 269; Tab. XI, f. 12.

Subgenus *Blepharoneura*.

Loew, Monogr. III, 271; Observ.; 1837.

- * *poeecilogastra* Loew, Monogr. III, 270. — Cuba.

Subgenus *Acrotaenia*.

Loew, Monogr. III, 274; Observ.; 1873.

- testudinea* Loew, Monogr. III, 272; Tab. XI, f. 13. — Cuba.

Subgenus *Eutreta*.

Loew, Monogr. etc. III, 275; Observ. 3; 1873. Syn. *Icaria* Schiner, Novara, 267 (1868). (^{3c6}).

- * *Diana* O. Sacken, Western Diptera, 347. — Missouri.

- ***rotundipennis** Loew, Monogr. I, 79; Tab. II, f. 14; *ibid.* III, 276, Tab. X, f. 14. — Middle States.
- ***sparsa** Wiedemann, Auss. Zw. II, 492; Loew, Monogr. I, 78; Tab. II, f. 13; *ibid.* III, 274; Tab. X, f. 13. — United States (including Texas, Colorado, California) and Canada.
- Trypeta caliptera* Say, Journ. Acad. Phil. VI, 187, 3; Compl. Wr. II, 370. [Lw.]
- Platystoma latipennis* Macquart, Dipt. Exot. II, 3, 200; Tab. XXVI, f. 8. [Lw.]
- Acinia novaboracensis* Fitch, First Rep. 67. [Lw.]

Subgenus Carphotricha.

- Loew, Europ. Bohrfiegen, 77, 1862; compare also Monogr. III, 279.
- ***culta** Wiedemann, Auss. Zw. II, 486; Loew, Monogr. I, 94; Tab. II, f. 29; *ibid.* III, 276; Tab. XI, f. 3. — Savannah; Carolina, Texas, Kansas.
- Acinia fimbriata* Macquart, Dipt. Exot. II, 3, 228, 5; Tab. XXXI, f. 5. [Lw.]

Subgenus Euresta.

- Loew, Monogr. III, 280; Observ. 3; 1873. (³⁶⁵).
- ***comma** Wiedemann, Auss. Zw. II, 478; Loew, Monogr. I, 93; Tab. II, 28; *ibid.* III, 280; Tab. XI, f. 2; Macquart, Dipt. Exot. II, 3, 229 (*Acinia*). — Kentucky; Maryland; Massachusetts.
- ***latifrons** Loew, Monogr. I, 89; Tab. II, f. 22; *ibid.* III, 283; Tab. X, f. 22. — Connecticut, Wisconsin, Carolina, Detroit, Mich., White Mts., N. H.
- Trypeta cribrata* v. d. Wulp, Tijdschr. v. Ent. 2^a Ser. Vol. II, 158; Tab. V, f. 15. [Lw.]
- ***solidaginis** Fitch, First Rep. 66 (*Acinia*); Loew, Monogr. I, 82; Tab. II, 16; *ibid.* III, 279; Tab. X, f. 16. — Atlantic States and Canada.
- Teplitis asteris* Harris, Ins. Injar. to veget. 3^d edit 620. [Lw.]

Subgenus Acidozona.

- Loew, Monogr. III, 285; Observ.; 1873.
- ***melanura** Loew, Monogr. III, 283; Tab. XI, f. 6. — Distr. Columbia.

Subgenus Neaspilota.

- Aspilota* Loew, Monogr. III, 286; Observ.; 1873. (³⁰⁷).
- ***alba** Loew, Centur. I, 72; Monogr. I, 100; *ibid.* III, 285; Tab. XI, f. 11. — Pennsylvania; Missouri; Colorado. (³⁰).
- ***albidipennis** Loew, Centur. I, 73; Monogr. I, 100; *ibid.* III, 286; Tab. XI, f. 10. — Pennsylvania.
- ***vernoniae** Loew, Centur. I, 74; Monogr. I, 101; *ibid.* III, 286; Tab. XI, f. 8. — Pennsylvania.

Subgenus Ictericæ.

Loew, Monogr. III, 287; Observ.; 1873.

- * *circinata* Loew, Monogr. III, 288. — New York.
- * *seriata* Loew, Monogr. I, 84; Tab. II, f. 18; *ibid.* III, 287, Tab. X, f. 18. — Illinois; Detroit, Michigan; Massachusetts.
- Lichtensteinii* Wiedemann, Auss. Zw. II, 497; Loew, Monogr. etc. I, 92; Tab. II, f. 25; *ibid.* III, 289; Tab. XI, f. 9. — Mexico.

Subgenus Ensina.

Rob. Desvoidy, Myod. 751; 1830; Loew, Europ. Bohrfliegen, 64;
compare also Monogr. III, 291; Observ. 2.

- * *humilis* Loew, Monogr. I, 81; Tab. II, f. 17; *ibid.* III, 291; Tab. X, f. 17. — Cuba; Key-West, Florida; the Bermudas. (I have seen specimens from Colorado, apparently belonging here; Western Diptera, 345.)

Acinia picciola Bigot, R. de la Sagra etc. 824; Tab. XX, f. 10 [Lw.].

Observation. *Ensina peregrina* Loew, from Brazil, is described in Monogr. III, 292, Tab. X, f. 30.

Trypeta aurifera Thomson, California, is an *Ensina*; compare below, at the end of the genus *Trypeta*.

Subgenus Tephritis.

Latreille, Hist. Nat. des Crust. et des Ins. XIV, 389, 1804; compare also Loew, Europ. Bohrfliegen 96 and Monogr. III, 295.

- * *angustipennis* Loew, Germ. Zeitschr. V, 382; Tab. II, f. 4; *id.* Eur. Bohrfl. 113, Nr. 24; Monogr. III, 293 where the rest of the synonymy may be found). — Europe (Scandinavia) and North America (Yukon River, Alaska).
- * *albiceps* Loew, Monogr. III, 302; Tab. XI, f. 5. — Canada; Maine.
- * *elathrata* Loew, Monogr. I, 80; Tab. II, f. 15; *ibid.* III, 297; Tab. X, f. 5. — Middle States.
- * *euryptera* Loew, Monogr. III, 304. — West Point, N. Y.
- * *finalis* Loew, Centur. II, 78; Monogr. III, 296; Tab. XI, f. 4. — Texas; California.
- geminata* Loew, Centur. II, 75; Monogr. III, 298; Tab. XI, f. 1. — Pennsylvania.
- * *platyptera* Loew, Monogr. III, 306. — Connecticut.

fucata Fabricius, Ent. System. IV, 359, 194 (*Musca*); System. Antl. 321, 24 (*Tephritis*); Wiedemann, Auss. Zw. II, 505; Loew, Monogr. III, 301. — West Indies? (Fabr.); South America (Wied.)

Observation. *Trypeta acutangula* and *genalis* Thomson, from California, probably belong to the subgenus *Tephritis*; compare below, the end of the genus *Trypeta*.

Subgenus Euaresta.

Loew, Monogr. III, 295; also 308; Observ., 1873.

- **aequalis* Loew, Monogr. I, 86; Tab. II, f. 20; *ibid.* III, 308; Tab. X, f. 20. — Illinois, Ohio, Maryland (about the specimens from Colorado, compare O. Sacken, Western Dipt., 345)
- **bella* (Fitch) Loew, Monogr. I, 88; Tab. II, f. 23; *ibid.* III, 311; Tab. X, f. 23. — Atlantic States.
- **festiva* Loew, Monogr. I, 86; Tab. II, f. 21; *ibid.* III, 309; Tab. X, f. 21. — Pennsylvania; Connecticut; Illinois; Ohio; Quebec, Canada.
- **mexicana* Wiedemann, Auss. Zw. II, 551; Loew, Monogr. III, 317; Tab. X, f. 28. — Texas; Mexico.
- **pura* Loew, Monogr. III, 320. — Massachusetts.
- **melanogastra* Loew, Monogr. I, 90; Tab. II, f. 24; *ibid.* III, 315; Tab. X, f. 24. — Cuba.
- timida* Loew, Centur. II, 76; Monogr. III, 312; Tab. X, f. 25. — Mexico.

Observation. *Euaresta spectabilis*, *obscuriventris*, *tenuis* Loew, from Brazil, are described in Monogr. III, 309, 313, 316; Tab. X, f. 27, 26, 29.

Subgenus Urellia.

R. Desvoidy, Myod. 774; 1830; Loew, Europ. Bohrfliegen, 117.

- **abstersa* Loew, Centur. II, 77; Monogr. III, 323; Tab. XI, f. 7. — North America; Cuba.
- **actinobola* Loew, Monogr. III, 326. — Texas.
- **solaris* Loew, Monogr. I, 84; Tab. II, f. 19; *ibid.* III, 325; Tab. X, f. 19. — Georgia (about the specimens from California, compare O. Sacken, Western Dipt., 345).
- **polyclona* Loew, Monogr. III, 324. — Cuba.

Observation. *Trypeta Mexarna* Walker, Florida, and *Trypeta femoralis* Thomson, California, are *Urelliae* (compare below).

The following species of *Trypeta*, described by earlier authors, have not been identified by Mr. Loew; they are discussed in Monogr. III, 325—338, and the descriptions are reproduced in the Appendix to Vol. I, and Appendix II, to Vol. III. I reproduce here the comments of Dr. Loew (as published, i. c.), with my remarks on some of them, based on the examination of the specimens in the Brit. Museum.

Acidusa Walker, List, etc. IV, 1014. — Florida [probably *Acrotoxa*. — Lw.].

acutaugula Thomson, Eugen. Resa 583. — California [probably *Tephritis*. — Lw.].

- aurifera* Thomson, Eugen. Resa, 585. — California [Subgenus *Eusina* — Lw.].
- Avala* Walker, List, etc. IV, 1020 (*Urophora*). — Jamaica. [Doubtful whether it belongs to Trypetidae or Ortalidae. — Lw.]. It is a small Ortalid.
- Beauvoisii* R. Desvoidy, Myod. 760 (*Prionella*). — North America (?) [Same remark as the preceding species. — Lw.].
- Dinia* Walker, List, etc. IV, 1040. — Jamaica. [Perhaps allied to *Trypeta* (*Hexachaeta eximia* Wiedemann, or perhaps a bad description of a variety of this species. — Lw.].
- femoralis* Thomson, Eugen. Resa, 585. — California [*Urellia*. — Lw.].
- genalis* Thomson, Eugen. Resa, 585. — California. [Probably *Teplitis*. — Lw.].
- marginipunctata* Macquart, Hist. Nat. Dipt. II, 464. — Philadelphia. [Almost certainly a Trypetid; but it would be premature to identify it with *Carphotricha culta*. — Lw.].
- Mearna* Walker, List, etc. IV, 1023. — Florida. [*Urellia*. — Lw.]. The specimen in the Brit. Mus. seems very like *T. solaris*.
- Narytia* Walker, List, etc. IV, 1020. — Florida; see my note⁽³⁰⁰⁾.
- obliqua* Macquart, Hist. Nat. Dipt. II, 464, 14; Dipt. Exot. II, 3, 225, 6; Tab. XXX, f. 11 (*Teplitis*). — Cuba. [*Acrotoxa*. — Lw.]. I saw the type in the Jardin des Plantes.
- Oeresia* Walker, List, etc. IV, 1016. — Jamaica. [*Acrotoxa*. — Lw.]. Yes!
- scutellata* Wiedemann, Auss. Zw. II, 494, 27. — Mexico. [A Trypetid of doubtful position. — Lw.].
- villosa* R. Desvoidy, Myod. 760, 2 (*Prionella*). — United States. [Same remark as about *Avala*. — Lw.].
- Macquart, Dipt. Exot. II, 3, 221 says that the european *Urophora quadrivittata* also occurs in Cuba. He can only mean *Urophora quadrifasciata* Meigen, and Schiner likewise understands it so, (compare his Dipt. Austriaca, Trypetidae, in the Verh. Zool. Bot. Ges. 1858, p. 657).

FAMILY LONCHAEIDAE. ⁽³⁰⁰⁾

Palloptera.

Fallen, Ortalidae; 1820.

**jucunda* Loew, Centur. III, 55. — Sitka.

**superba* Loew, Centur. I, 75. — Pennsylvania; Quebec, Canada.

**terminalis* Loew, Centur. III, 54. — Sitka.

Lonchaea.

Fallen, Ortalidae; 1820.

caerulea Walker, List, etc. IV, 1004. — Georgia.

polita Say, J. Acad. Phil. VI, 188; Compl. Wr. II, 371. — Indiana, Massachusetts (Harr. Cat.).

- **rufitarsis* Macquart, Dipt. Exot. 4^e Suppl. 300, 3; Tab. XXVIII, f. 2. — North America. [The *L. tarsata* Fallen of Walker's List, etc. IV, 1004, is probably this species.]

discrepans Walker, Trans. Ent. Soc. N. Ser. V, 322. — Mexico.

glaberrima Wiedemann, Auss. Zw. II, 475, 1. — West Indies.

nigra Wiedemann, Auss. Zw. II, 476, 3; Bigot, in R. de la Sagra etc. 827. — Brazil (Wied.); Cuba (Bigot).

FAMILY SAPROMYZIDAE.

Sapromyza. ⁽³¹⁰⁾

Fallen, Ortalidae; 1820.

- Amida* Walker, List, etc. IV, 988. — Georgia.
- **bispina* Loew, Centur. I, 79. — Nebraska.
- **compedita* Loew, Centur. I, 76. — Pennsylvania.
- connexa* Say, J. Acad. Phil. VI, 177, 1; Compl. Wr. II, 367. — Indiana.
- **decora* Loew, Centur. V, 96. — Lake George, New York; Quebec, Can.
- **fraterna* Loew, Centur. I, 77. — Pennsylvania.
- **lupulina* Fabricius, Meigen, System. Besch. V, 301 (*Lauzania*). — Europe and North America (see Loew, Sillim. Journ. XXXVII, 318).
- longipennis* Meigen, System. Besch. V, 300 (*Lauzania*). — Europe and North America (according to v. d. Wulp, l. c.).
- **macula* Loew, Centur. X, 82. — Texas.
- notata* Fallen; Loew, Dipt. Beitr. III, 40. — Europe and North America (according to v. d. Wulp, l. c.).
- **philadelphica* Macquart, Dipt. Exot. II, 3, 191, 13. — Atlantic States.
- **quadrilineata* Loew, Centur. I, 78. — Pennsylvania.
- resinosa* Wiedemann, Auss. Zw. II, 456, 14. — Georgia.
- **rotundicornis* Loew, Centur. III, 56. — Sitka.
- **stictica* Loew, Centur. III, 58. — Distr. Columbia; Texas.
- **tennispina* Loew, Centur. I, 80. — Nebraska.
- **umbrosa* Loew, Centur. III, 57. — Distr. Columbia.
- **vulgaris* Fitch, Reports, Vol. I, 300; Tab. I, f. 4 (*Chlorops*). — Atlantic States.
- Sapromyza plumata* v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. 159. ⁽³¹¹⁾
- apta* Walker, Trans. Ent. Soc. N. Ser. V, 321. — Mexico.
- bipunctata* Say, J. Acad. Phil. VI, 178, 2; Compl. Wr. II, 367. — Mexico.
- **cincta* Loew, Centur. I, 81. — Cuba.
- octopunctata* Wiedemann, Auss. Zw. II, 454, 9. — West Indies.
- sordida* Wiedemann, Auss. Zw. II, 456, 12. — West Indies.

Pachycerina.

Macquart, Hist. Nat. Dipt. II, 511; 1835.

- **verticalis* Loew, Centur. I, 82. — Florida.

Lauxania.

Latreille, Hist. Nat. des Crust. et des Ins. XIV, 390; 1804.

- * *cylindricornis* Fabricius, Meigen, etc. — Europe and North America [Loew, Sillim. Journ. N. Ser. XXXVII, 318].
- Elisae* Meigen, System. Besch. V, 297. — Europe and North America [Nova Scotia, Walker, List, etc. IV, 1003].
- * *encephala* Loew, Centur. X, 83. — Texas.
- * *femoralis* Loew, Centur. I, 89. — Georgia.
- * *frontalis* Loew, Wien. Ent. Monatschr. II, 14. — Europe and North America (see Loew, Sillim. Journ., l. c. 318).
- * *flaviceps* Loew, Centur. VII, 91. — Distr. Columbia.
- * *gracilipes* Loew, Centur. I, 85. — Pennsylvania.
- * *manulcata* Loew, Centur. I, 88. — Pennsylvania.
- * *opaca* Loew, Centur. I, 84. — Florida.
- * *obscura* Loew, Centur. I, 86. — Atlantic States and Brit. America.
- * *trivittata* Loew, Centur. I, 90. — Georgia.

basalis Thomson, Eugen. Resa, 568. — California.

planiseuta Thomson, Eugen. Resa, 568. — California.

quatrissetosa Thomson, Eugen. Resa, 569. — California.

- * *albovittata* Loew, Centur. II, 79. — Cuba.
- argyrostoma* Wiedemann, Auss. Zw. II, 471, 3. — West Indies (South America, Schiner, Novara, 282).
- * *muscaria* Loew, Centur. II, 87. — Cuba (South America, Schiner, Novara, 282).
- * *variegata* Loew, Centur. II, 83. — Cuba (occurs als in South America, according to Schiner, Novara. 277, who places it in the genus *Physegenua* Macq. (Dipt. Exot. 3^e Suppl. 60), and has a long note on the subject.)

FAMILY PHYCODROMIDAE.

Coelopa.

Meigen, System. Besch. VI, 194; 1830. ⁽³¹²⁾.

- * *frigida* Fallen, Hydrom. 6, 1. — Europe and North America (common on sea-beaches).
- * *nitidula* Zetterstedt, Dipt. Scand. VI, 2173, 2; Stenhammar, Copromyz. 6. — Europe and North America.

FAMILY HETERONEURIDAE.

Heteroneura.

Fallen, Agromyz.; 1823. ⁽³¹³⁾.

- * *albimana* Meigen, System. Besch. VI, 128. — Europe and North America (Loew, Sillim. J. XXXVII, 318).

- **melanostoma* Loew, Centur. V, 97. — White Mts., New Hampshire.
 **latifrons* Loew, Wien. Ent. Monatschr. IV, 82, 8; Centur. IV, 93. —
 Distr. Columbia.
 **spectabilis* Loew, Wien. Ent. Monatschr. IV, 82, 7; Centur. IV, 92. —
 Distr. Columbia.

Anthophilina.

Zetterstedt, Ins. Lapp. 785; 1840. ⁽³¹⁴⁾.

- **tenuis* Loew, Centur. IV, 95. — Sitka.
 **terminalis* Loew, Centur. IV, 94. — White Mts., N. H. (erroneously
 „Carolina“ in the Centuries).
 **variegata* Loew, Centur. IV, 96. — Distr. Columbia.

Ischnomyia.

Loew, Centur. IV, 97; 1863.

- **vittata* Loew, Centur. IV, 97. — Pennsylvania.

Trigonometopus.

Macquart, Hist. Nat. Dipt. II, 419; 1835.

- **vittatus* Loew, Centur. VIII, 98 (compare also Centur. Vol. II, 290
 line 18 from the bottom, about the systematic location of this
 species). — Georgia.

FAMILY OPOMYZIDAE.

Balioptera.

Loew, Berl. Ent. Zeitschr. VIII, 347–356; 1864.

- **lurida* Loew, Centur. V, 98 (*Opomyza*); Berl. Ent. Zeitschr. VIII, 356,
 where the species is referred to Balioptera. — Sitka.

Opomyza.

Fallen, Opomyzidae, 10; 1829. ⁽³¹⁵⁾.

- **signicosta* Walker, Trans. Ent. Soc. N. S. V, 320. — United States.

Seyphella.

R. Desvoidy, Myod. 650; 1850.

- **flava* Linné, Fallen, Dipt. Suec. Ortalid. 33. — Europe and North
 America (New York, on windows; see also Loew, Sillim. Journ.
 XXXVII, 318).

FAMILY SEPSIDAE. ⁽³¹⁶⁾

Sepsis.

Fallen, Ortalidae, 20; 1820.

- **referens* Walker, List, etc. IV, 999. — North America.
 **similis* Macquart, Dipt. Exot. 4^e Suppl. 296, 4; Tab. XXVII, f. 11. —
 North America.

- vicaria** Walker, List, etc. IV, 998. — Florida.
- discolor** Bigot, in R. de la Sagra etc. 823. — Cuba.
- ***scabra** Loew, Wien. Ent. Monatschr. V, 42. — Cuba.
- ecalearata** Thomson, Eugen. Resa etc. 588. — California.
- Observation.** For *Sepsis Guerinii* Bigot, see *Stenomacra Guerinii*.

Nemopoda.

- Rob. Desvoidy, Myod. 743; 1830.
- ***cylindrica** Fabricius; Meigen, System. Besch. V, 290. — Europe and North America. [Harris's Catal. The species commonly found in New England seems to belong here.]
- caeruleifrons** Macquart, Dipt. Exot. 2^e Suppl. 94. — Philadelphia.
- minuta** Wiedemann, Auss. Zw. II, 468, 4 (*Sepsis*). — New York. [Placed in *Nemopoda* by Loew *in litt.*]

FAMILY PIOPHILIDAE.

Mycetaulus.

- Loew, Dipterol. Beitr. I, 37; 1845.
- ***longipennis** Loew, Centur. IX, 100. — Huds. B. Terr.

Piophila.

- Fallen, Heterom., 8; 1820.
- ***casei** Linné, Meigen, System. Besch. V, 395; Staeger, Groenl. Antl. 369. — Europe and North America (see Loew, in Sillim. Journ. XXXVII, 318).
- nigriceps** Meigen, System. Besch. V, 397. — Europe and North America (see Loew, in Sillim. Journ. l. c.).
- nigriceps** Macquart, Dipt. Exot. 4^e Suppl. 303; Tab. XXVIII, f. 6. — North America.
- nitida** v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 160; Tab. V, f. 16—18. — Wisconsin.
- petasionis** L. Dufour, Ann. des Sc. Nat. 1844, 369. — Europe and North America (see Loew, in Sillim. Journ., l. c.).
- pilosa** Staeger, Groenl. Antl. 363, 52; Zetterstedt, Dipt. Scand. VI, 2514; Holmgren, Ins. Nordgroenl. 104. — Greenland.
- concolor** Thomson, Eugen. Resa, 596. — California.

Prochyliza.

- Walker, List, etc. IV, 1045; 1849.
- ***xanthostoma** Walker, List, etc. IV, 1045. — Huds. B. Terr. (Walk.); Distr. Columbia (O. S.).

Madiza.

Fallen, Oscinidae; 1820.

annulitarsis Zetterstedt, has been received from Wisconsin, according to Mr. v. d. Wulp, Tijdschr. N. S. IV, 80.

FAMILY DIOPSIDAE.

Sphyracephala.

Say, Amer. Entom. III, Tab. 52; 1823.

- * *brevicornis* Say, J. Acad. Phil. I, 23; Compl. Wr. II, 3 (*Diopsis*); Amer. Entom. III, Tab. 52; Compl. Wr. I, 116; Wiedemann, Auss. Zw. II, 563 (*Diopsis*): id. Achias etc. Tab. II, f. 3 (*id.*); Gray, in Griffith's Anim. Kingd., Ins. etc. 774, Tab. 62, f. 2; Westwood, Trans. Linn. Soc. Vol. XVII, 311, Tab. IX, f. 20 (copied from Say); Macquart, Hist. Nat. Dipt. II, 486 (*Diopsis*); Loew, Zeitschr. f. Ges. Naturw. XLII, 101. — Atlantic States.

Sphyracephala subbifasciata Fitch, Reports, Vol. I, 70 [Loew l. c.].

FAMILY EPHYDRIDAE. ⁽³¹⁷⁾.

SECTION I. NOTIPHILINA.

Dichaeta.

Meigen, System. Besch. VI, 61; 1820.

- * *caudata* Fallen, Meigen, System. Besch. VI, 62; Loew, Monogr. I, 133. — Europe and North America [Massachusetts, White Mts., N. H.].
- * *brevicauda* Loew, Neue Beitr. VII, 5; Monogr. I, 133. — Europe and North America (Middle States).

Notiphila.

Fallen, Hydromyz.; 1823.

- * *avia* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 193. — Huds. B. Terr.
- * *bella* Loew, Monogr. I, 135. — Middle States.
- * *carinata* Loew, Monogr. I, 137. — Middle States.
- * *macrochaeta* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 192. — Texas.
- * *pulcherrifrons* Loew, Centur. X, 84. — Texas.
- * *scalaris* Loew, Monogr. I, 134. — Middle States.
- * *unicolor* Loew, Monogr. I, 137. — Middle States.
- * *vittata* Loew, Monogr. I, 134. — Middle States.

quadrifasetosa Thomson, Eugen. Resa, etc. 594. — California.

- * *erythrocer*a Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 194. — Cuba.

The following species were described as *Notiphilæ* by Mr. Walker:

nitidula Fallen, Meigen; Walker, List, etc. IV, 1098. — Europe; Huds. Bay.

producta Walker, List, etc. IV, 1099. — Huds. Bay.

repleta Walker, List, etc. 1099. — Huds. Bay.

solita Walker, Dipt. Saund. 406. — United States.

transversa Walker, Dipt. Saund., 407. — United States.

Observation. For *Notiphila argentata* Walker see *Brachydeutera*.

Paralimna. (*)

Loew, Monogr. I, 138; 1862.

- * *appendiculata* Loew, Monogr. I, 138. — Middle States.

- * *decipiens* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 195. — Texas.

Discomyza.

Meigen, System. Besch. VI, 76; 1830.

- * *balioptera* Loew, Monogr. I, 140. — Cuba.

Psilopa.

Fallen, Hydromyz.; 1820.

- * *aeneo-nigra* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 196. — Texas.

- * *atra* Loew, Monogr. I, 142. — Middle States.

- * *atrimana* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 197. — Distr. Columbia, Texas.

- * *nobilis* Loew, Centur. II, 92. — Distr. Columbia.

- * *pulchripes* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 197. — Texas.

- * *scoriacea* Loew, Monogr. I, 142. — New York.

- * *aciculata* Loew, Monogr. I, 142. — Cuba.

- * *caeruleiventris* Loew, Monogr. I, 144. — Cuba.

- * *umbrosa* Loew, Monogr. I, 143. — Cuba.

Discocerina.

Macquart, Hist. Nat. Dipt. II, 527; 1835.

- * *lacteipennis* Loew, Monogr. I, 145. — Distr. Columbia.

- * *leucoprocta* Loew, Centur. I, 93; Monogr. I, 148. — Maryland.

- * *orbitalis* Loew, Centur. I, 91; Monogr. I, 147. — Distr. Columbia.

- * *parva* Loew, Monogr. I, 146. — Distr. Columbia.

- * *simplex* Loew, Centur. I, 92; Monogr. I, 147. — Maryland.

*) *Paralimna* appeared in the same year 1862 in the Ofvers. af K. Vet. Akad. Förh. p. 13, applied by Dr. Loew to three South African species. The genus, although introduced there for the first time, is not defined.

Athyroglossa.

Loew, Neue Beitr. VII, 12; 1860.

- * *glaphyropus* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 193. — Texas.

SECTION II. HYDRELLINA.**Hydrellia.**

R. Desvoidy, Myod. 790; 1830.

- * *conformis* Loew, Centur. VIII, 73. — Newport, R. I.
 * *formosa* Loew, Centur. I, 94; I, 154. — Pennsylvania.
 * *hypoleuca* Loew, Monogr. I, 151. — Middle States.
 * *ischiaca* Loew, Monogr. I, 150. — Middle States.
 * *obscuriceps* Loew, Monogr. I, 152. — Middle States.
 * *scapularis* Loew, Monogr. I, 153. — Middle States.
 * *valida* Loew, Monogr. I, 153. — Middle States.

Philygria.

Stenhammar, Ephydrin., 238; 1844.

- * *debilis* Loew, Centur. I, 96; Monogr. I, 157. — Pennsylvania.
 * *fuscicornis* Loew, Monogr. I, 155. — Middle States.
 * *opposita* Loew, Centur. I, 95; Monogr. I, 156. — Distr. Columbia; Pennsylvania; Canada (Quebec).
 * *vittipennis* Zetterstedt, in Staeger's Groenl. Antl. 369. [Philygria. — Loew *in litt.*]

Myadina.

Haliday, Ann. of Nat. Hist. III, 406; 1830.

- * *gravida* Loew, Centur. IV, 98. — Sitka.

SECTION III. EPHYDRINA.**Pelina.**

Haliday, Ann. Natur. Hist. III, 407; 1839.

- * *truncatula* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 193. — Texas.

Ochthera.

Latreille, Hist. Nat. d. Crust. et d. Ins. XIV; 1804.

- * *mantis* Degeer, Loew, Monogr. I, 161. — Europe and United States.
 * *rapax* Loew, Monogr. I, 162. — Carolina.
 * *tuberculata* Loew, Monogr. I, 161. — Illinois.
 * *exsculpta* Loew, Monogr. I, 160. — Cuba.

Observation. *Ochthera empiformis* Say, J. Acad. Phil. III, 99 is a *Heemerodromia*.

Brachydeutera.

Loew, Monogr. I, 162; 1862.

- * *dimidiata* Loew, Monogr. etc. I, 163. — Distr. Columbia; Cuba.
Notiphila argentata Walker, Dipt. Saund., 407 [Loew *in litt.*].

Parydra.

Stenhammar, Monogr. Ephydr.; 1844.

- * *abbreviata* Loew, Centur. I, 97; Monogr. I, 168. — Pennsylvania.
 * *appendiculata* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 202. — Texas.
 * *bituberculata* Loew, Monogr. I, 165. — Middle States.
 * *breviceps* Loew, Monogr. I, 167. — Middle States.
 * *imitans* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 201. — Massachusetts.
 * *limpidipennis* Loew, Zeitschr. f. d. Ges. Naturw. 1878 (March), 201. — Distr. Columbia.
 * *paullula* Loew, Monogr. I, 167. — United States.
 * *pinguis* Walker, Dipt. Saund., 409 (*Ephydra*); Loew, Zeitschr. f. d. Ges. Naturw. 1878, (March), 199. — Distr. Columbia; Texas.
 * *quadrituberculata* Loew, Monogr. I, 165. — Middle States.
 * *unituberculata* Loew, Zeitschr. f. d. Ges. Naturw. 1878, (March) 200. — Distr. Columbia.
varia Loew, Centur. IV, 100. — Sitka.

Ephydra.

Fallen, Hydromyz.; 1820.

- * *atrovirens* Loew, Monogr. I, 169. — Middle States.
brevis Walker, Trans. Ent. Soc. N. Ser. IV, 233. — United States.
halophila Packard, Proc. Essex Instit. VI, 46 (figure on page 48). — Illinois. (³¹⁸).
lata Walker, Trans. Ent. Soc. N. S. IV, 233. — United States.
nana Walker, Trans. Ent. Soc. N. J. IV, 234. — United States.
 * *obscuripes* Loew, Centur. VII, 92. — Massachusetts.
 * *subopaca* Loew, Centur. V, 99. — Connecticut.
 * *crassimana* Loew, Centur. VI, 88. — Mexico.
hians Say, J. Acad. Phil. VI, 188; Compl. Wr. II, 371. — Mexico.
lutea Wiedemann, Auss. Zw. II, 593, 3. — West Indies.
Thomae Wiedemann, Auss. Zw. II, 593, 3. — St. Thomas.

Observation. *E. californica* and *gracilis* Packard, Am. J. Sc. and Art. 3d Ser. I, 103, from California, are described in the larva state only.

Scatella.

R. Desvoidy, Myod. 801; 1830.

- * *favillacea* Loew, Monogr. I, 170. — Middle States.
 * *lucens* Loew, Monogr. I, 171. — Middle States.
 * *mesogramma* Loew, Centur. VIII, 74. — Newport, R. I.

- **obsoleta* Loew, Centur. I, 98; Monogr. etc, I, 172. — Distr. Columbia
 **quadrata* Fallen, Hydromyz. 5, 6; Schiner, Fauna Austr. II, 263. —
 Europe and North America (Loew, Sillim. Journ. etc.).
 **sejuncta* Loew, Centur. IV, 99. — Sitka.
 **Stenhammari* Zetterstedt, Dipt. Scand. V, 1842, 24. — Europe and
 North America (Loew, Sillim. Journ. XXXVII, 318).
stagnalis Meigen, in Staeger's Groenl. Antl. (*Ephydra*); Holmgren,
 Ins. Nordgroenl., 103. — Europe, Greenland.

Observation. The following species seem also to belong to *Scutella*.

<i>Ephydra picea</i>	Walker, List, etc. IV, 1105. —	Huds. B. Terr.
" <i>oscitans</i>	Walker, l. c. 1106. —	"
" <i>octonotata</i>	Walker, l. c. 1106. —	"
" <i>striata</i>	Walker, l. c. 1107. —	"
" <i>pentastigma</i>	Thomson, Eugen. Resa, etc. 591. —	California.

Caenia.

R. Desvoidy, Myod. 800; 1830.

- **spinosa* Loew, Centur. V, 100. — Massachusetts, New York.

Ilythea.

Haliday, Ann. of Nat. Hist. III, 408; 1830.

- **spilota* Curtis, Brit. Entom. 413; Schiner, Fauna Austr. II, 263. —
 Europe and North America (Loew, in Sillim. Journ. Vol. XXXVII,
 318).
 (?) *Ephydra oscitans* Walker, Trans. Ent. Soc. N. S. IV, 233. —
 United States. (³¹⁹).

FAMILY GEOMYZIDAE. (³²⁰).

Diastata.

Meigen, System. Besch. VI, 94; 1830.

- **eluta* Loew, Centur. III, 59. — Sitka.
 **pulehra* Loew, Centur. I, 100. — Pennsylvania.
tenuipes Walker, List, etc. IV, 1112. — Huds. B. Terr.
 **vagans* Loew (*in litt.*). — Europe and North America (N. Hampshire).
 I mention this name, because it occurs in Loew's typical collec-
 tion and in my collection (now both in the Mus. Comp. Zool.);
 but I am not aware that the species has ever been described.

Diplocentra.

Loew, Centur. Vol II, page 288; 1872; *Curtanotum* Macq., Dipt. Exot.
 II, 3, 193 (this name is preoccupied).

- **helva* Loew, Centur. II, 91. — British America.

FAMILY DROSOPHILIDAE.

Phortica.

Schiner, Wien. Ent. Monat.-chr. VI, 1862, December; *Amiota* Loew, Centur. II, 93; 1862, May; compare also Centur. Vol. II, page 288 (³²¹).

* *alboguttata* Wahlberg, K. Vetensk. akad. handl. 1838, 22 (*Drosophila*). — Sweden and North America (Loew *in litt.*).

* *humeralis* Loew, Centur. II, 93 (*Amiota*). — Distr. Columbia.

* *leucostoma* Loew, Centur. II, 94 (*Amiota*). — Pennsylvania.

Stegana.

Meigen, System. Besch. VI, 79; 1830.

* *hypoleuca* Meigen, System. Besch. VI, 80. — Europe and North America (Loew, in Sillim. Journ. XXXVII, 318).

* *nigra* Meigen, System. Besch. VI, 79; Tab. 58, f. 24, 25. — Europe and North America (Loew, l. c.).

Drosophila.

Fallen, Geomyz.; 1823.

* *adusta* Loew, Centur. II, 98. — Distr. Columbia.

albipes Walker, Dipt. Saund., 410. — United States.

* *amoena* Loew, Centur. II, 96. — Distr. Columbia.

* *ampelophila* Loew, Centur. II, 99. — Distr. Columbia; Cuba.

brevis Walker, Dipt. Saund., 411. — United States.

colorata Walker, List, etc. IV, 1010. — New York

decemguttata Walker, Dipt. Saund., 411. — United States.

* *dimidiata* Loew, Centur. II, 95. — Illinois.

fronto Walker, Dipt. Saund., 410. — United States.

funebis Meigen, quoted by Macquart, Dipt. Exot. 4^e Suppl. 305, as occurring in Europe and North America.

* *graminum* Fallen, Geomyz. 8; Zetterstedt, Dipt. Scand. VI, 2560. — Europe and North America (Loew, Sillim. J. N. S. XXXVII, 318).

guttifera Walker, List, etc. IV, 1110. — Florida.

inversa Walker, Trans. Ent. Soc. N. Ser. V, 331. — United States.

linearis Walker, Dipt. Saund., 411. — United States.

minuta Walker, Dipt. Saund., 412. — United States.

* *multipunctata* Loew, Centur. VII, 93. — Distr. Columbia.

* *obesa* Loew, Centur. X, 85. — Texas.

quadrimaculata Walker, Dipt. Saund., 412. — United States.

* *quinaria* Loew, Centur. VI, 90. — New York.

* *sigmoides* Loew, Centur. X, 86. — Texas.

* *terminalis* Loew, Centur. III, 60. — Sitka.

* *transversa* Fallen, Geomyz. 6; Meigen, System. Besch. VI, 84. — Europe and North America (Loew, in Sillim. J. N. S. XXXVII, 318).

* *tripunctata* Loew, Centur. II, 97. — Distr. Columbia.

- valida* Walker, Trans. Ent. Soc. N. Ser. IV, 232. — United States.
 * *varia* Walker, List, etc. IV, 1109. — Georgia.
 * *bimaculata* Loew, Centur. VI, 91. — Cuba.
 * *flexa* Loew, Centur. VI, 89. — Cuba.
 mexicana Macquart, Dipt. Exot. II, 3, 259, 4; Tab. XXXV, f. 1. — Mexico.
 * *obscuripennis* Loew, Centur. VI, 92. — Cuba.
 * *punctulata* Loew, Centur. II, 100. — Cuba.
apicata Thomson, Eugen. Resa, etc. 597. — California.

Observation. Walker, List, etc. 1107 has a *D. cellaris* Linné, as common to Europe and North America. According to Schiner, Dipt. Austr. II, 278, foot-note, Linné's *Musca cellaris* must be a *Phora*, and Walker must have been in error both here and in Ins. Brit. Dipt. II, 237, where he described a *Drosophila cellaris* Linné.

FAMILY OSCINIDAE.

Crassiseta.

Von Roser, Verz. Württ. Dipt. Nachtrag; 1840; Loew, Dipt. Beitr. I, 48; 1845.

- * *costata* Loew, Centur. III, 62. — Distr. Columbia.
 * *canota* Loew, Centur. X, 89. — Texas.
 formosa Loew, Centur. III, 61. — Distr. Columbia.
 * *longula* Loew, Centur. III, 64. — Distr. Columbia.
 * *nigripes* Loew, Centur. III, 63. — Distr. Columbia.
 * *nigricornis* Loew, Centur. III, 65. — Distr. Columbia.

Gaurax.

Loew, Centur. III, 66; 1863.

- * *anchora* Loew, Centur. VII, 94. — New York (inquilinous in cocoons of *Attacus cecropia*).
 * *festivus* Loew, Centur. III, 66. — Pennsylvania.
 * *signatus* Loew, Zeitschr. f. Ges. Naturw. 1876, 338. — Texas.

Hippelates.

Loew, Centur. III, 67; 1863.

- * *eulophus* Loew, Centur. X, 88. — Texas.
 * *nobilis* Loew, Centur. III, 67. — Illinois.
 * *plebejus* Loew, Centur. III, 68. — Distr. Columbia.
 * *pusio* Loew, Centur. X, 87. — Texas.

genalis Thomson, Eugen. Resa, etc. 608. — California.

- * *convexus* Loew, Centur. VI, 94. — Cuba.
- * *dorsalis* Loew, Centur. VIII, 75. — Cuba.
- * *flavipes* Loew, Centur. VI, 95. — Cuba.
- * *pallidus* Loew, Centur. VI, 93. — Cuba.

Oscinis.

Latreille, Nouveau Dict. d'Hist. Natur. XXIV, Tabl. Méthod 196;
1804. ⁽³²²⁾.

- * *atriceps* Loew, Centur. III, 74. — Pennsylvania.
- * *carbonaria* Loew, Centur. VIII, 76. — Distr. Columbia.
- * *coxendix* Fitch, Reports, Vol. I, 301. — New York.
- * *crassifemoris* Fitch, Reports, Vol. I, 301. — New York. [Location doubtful; perhaps *Opetiophora*? — Lw.].
- * *decipiens* Loew, Centur. III, 76. — Sitka.
- * *dorsalis* Loew, Centur. III, 72. — Pennsylvania.
- * *dorsata* Loew, Centur. Vol. II, page 291 in erratis.
Oscinis dorsalis Loew, Centur. VIII, 77. — Newport, R. I.
- * *hirta* Loew, Centur. III, 75. — Illinois.
- * *longipes* Loew, Centur. III, 77. — Distr. Columbia.
- * *nudiuscula* Loew, Centur. III, 70. — Georgia.
- * *soror* Macquart, Dipt. Exot. 4^e Suppl. 306, 5; Tab. XXVIII, f. 11
(*Chlorops*). — North America.
- * *subvittata* Loew, Centur. III, 78. — Distr. Columbia.
- * *trigramma* Loew, Centur. III, 80. — Distr. Columbia.
- * *umbrosa* Loew, Centur. III, 73. — Pennsylvania.
- * *variabilis* Loew, Centur. III, 79. — Distr. Columbia.
- * *flaviceps* Loew, Centur. III, 71. — Cuba.
- * *pallipes* Loew, Centur. III, 69. — Cuba.

Meromyza.

Meigen, System. Besch. V, 163; 1830.

- * *americana* Fitch, Reports I, 299; Riley, First Report, Tab. II, f. 28.
— United States.

Ectècephala.

Macquart, Dipt. Exot. 4^e Suppl. 280; 1850.

- * *albistylum* Macquart, Dipt. Exot. 4^e Suppl. 280, 1; Tab. XXV, f. 17.
— North America.

Opetiophora.

Loew, Centur. X, 90; 1872.

- * *straminea* Loew, Centur. X, 90. — Texas.

Siphonella.

Macquart, Hist. Nat. Dipt. II, 584; 1835. ⁽³²²⁾.

- * *cinerea* Loew, Centur. III, 81. — Florida.

- ***latifrons** Loew, Centur. X, 91. — Texas.
- obesa** Fitch, Report I, 299. — New York.
- plumbella** Wiedemann, Auss. Zw. II, 574 (*Homalura*); placed among the Siphonellae on the authority of Loew, Monogr. I, 46. — West Indies.
- ***reticulata** Loew, Centur. VIII, 78. — Cuba.

Chlorops.

Meigen, in Illig. Magaz. II, 278; 1803; the subgenera have been introduced and characterized by Mr. Loew in the Schles. Zeit. f. Entom.; 1866. (³²²).

Subgenus Centor.

- ***procera** Loew, Centur. X, 92. — Connecticut.

Subgenus Haplegis.

- ***fossulata** Loew, Centur. III, 82. — Cuba.

Subgenus Anthracophaga.

- ***eucera** Loew, Centur. III, 85. — Distr. Columbia.
- ***maculosa** Loew, Centur. X, 99. — Texas.
- ***sanguinolenta** Loew, Centur. III, 84. — Carolina.

Subgenus Diplotoxa.

Compare about it: Loew, Centur. X, 98.

- ***alternata** Loew, Centur. X, 97. — Texas.
- ***confluens** Loew, Centur. X, 94. — Texas.
- ***microcera** Loew, Centur. X, 95. — Texas.
- ***nigricans** Loew, Centur. X, 98. — Texas.
- ***pulehripes** Loew, Centur. X, 96. — Texas.
- ***versicolor** Loew, Centur. III, 97. — United States and Canada.
- ***Gundlachi** Loew, Centur. X, 93. — Cuba.

Subgenus Chlorops.

- ***crocota** Loew, Centur. III, 89. — Pennsylvania.
- ***melanocera** Loew, Centur. III, 91. — Distr. Columbia.
- ***mellea** Loew, Centur. X, 100. — Texas.
- ***obscuricornis** Loew, Centur. III, 90. — Distr. Columbia.
- ***producta** Loew, Centur. III, 96. — Sitka.
- ***pubescens** Loew, Centur. III, 88. — Florida.
- ***quinquepunctata** Loew, Centur. III, 94. — Nebraska.
- ***Sahlbergi** Loew, Centur. III, 95. — Sitka.
- ***sulphurea** Loew, Centur. III, 83. — Brit. North America.
- ***unicolor** Loew, Centur. III, 93. — Mississippi.
- ***variceps** Loew, Centur. III, 86. — Sitka.

Subgenus Chloropisca.

- ***grata** Loew, Centur. III, 92. — Pennsylvania.

* *trivialis* Loew, Centur. III, 87. — Distr. Columbia.

Observation. About the species of *Chlorops* enumerated on page 85 of my first Catalogue, Mr. Loew communicates me the following remarks.

antennalis Fitch, Reports I, 300, see my note [³¹¹].

annulata Walker, List, etc. IV, 1119. — Huds. B. Terr. [probably *Chloropisca*. — Loew].

assimilis Macquart, Dipt. Exot. 4^e Suppl. 306, 3; Tab. XXVIII, f. 9. — North America (probably *Diptotoxa*. — Loew].

atra Macquart, Dipt. Exot. 4^e Suppl. 307, 6; Tab. XXVIII, f. 12 [probably *Eutrophia*; hardly *Haplegis*. — Loew].

bistriata Walker, List, etc. IV, 1120. — Huds. B. Terr. [apparently *Chlorops*, in the narrower sense. — Loew].

perflava Walker, List, etc. IV, 1120 [perhaps *Diptotoxa*. — Loew].

proxima Say, J. Acad. Phil. VI, 187; Compl. Wr. II, 370. — Indiana.

soror Macquart, see *Oscinis soror*.

testacea Macquart, Dipt. Exot. 4^e Suppl. 306, 4; Tab. XXVIII, f. 10. — North America [*Chlorops*, sensu strict. — Loew].

tibialis Fitch, Reports I, 300; Tab. I, f. 5. — New York.

vittata Wiedemann, Auss. Zw. II, 594, 1. — West Indies. [The plumose antennae render the position of this species in the family somewhat doubtful. As *Hippelates eulophus* alone, among all N. A. species, has such antennae, *C. vittata* may be a *Hippelates*. However South America possesses several *Oscinidae* with plumose antennae. — Loew.]

Elliponeura.

Loew, Centur. VIII, 79; 1869.

* *debilis* Loew, Centur. VIII, 79. — Distr. Columbia.

Gymnopa.

Fallen, Oscinid., 1820; *Mosillus* Latreille; 1804. (²²³).

nigroaenea Walker, Dipt. Saund., 413. — United States.

tarsalis Walker, l. c. — United States.

FAMILY AGROMYZIDAE.

Rhienoëssa.

Loew, Wien. Ent. Monatschr. VI, 174. (³²⁴).

* *albula* Loew, Centur. VIII, 80. — Newport, R. I.

* *coronata* Loew, Centur. VI, 93. — Georgia.

* *parvula* Loew, Centur. VIII, 81. — Newport, R. I.

Lobioptera.

Wahlberg, Oefvers. af K. Vetensk. Acad. Forh. 1847, 259.

* *areolata* Loew, Zeitschr. f. Ges. Naturw. 1876, 339. — Long Island, N. Y.

* *indecora* Loew, Centur. VIII, 94. — Nebraska.

* *lacteipennis* Loew, Centur. VI, 97. — Cuba.

* *leucogastra* Loew, Centur. VIII, 95. — Cuba.

Milichia leucogastra Loew, Wien. Ent. Monatschr. V, 43, 20.

Phleomyia.

Bilimek, Verh. Zool. Bot. Ges. 1867, 903.

leucozona Bilimek, l. c. — Mexico.

Milichia.

Meigen, System. Besch. VI, 131; 1830. (³²⁷).

* *picta* Loew, Centur. I, 99. — Georgia.

Cacoxenus.

Loew, Wien. Ent. Monatschr. 1858, 217. (³²⁶).

* *semiluteus* Loew, Centur. VIII, 97. — Cuba.

Aulacigaster.

Macquart, Hist. Nat. Dipt. II, 579; 1835. (³²⁷).

Amphycophora Wahlberg, Oefvers. K. Svensk. Vet. Acad. Förh. 1847, p. 261—263; Tab. VII, f. 2.

Apotomella Leon Dufour, Ann. Soc. Ent. de Fr. 1845, p. 455.

* *rufitarsis* Macquart, etc. For the description and full quotations see Schiner, Fauna Austr., Dipt. II, 270. — Europe and North America (Distr. Columbia; Texas. — Lw. *in litt.*).

Leucopis.

Meigen, System. Besch. VI, 133; 1830.

* *simplex* Loew, Centur. VIII, 96. — New York.

* *bella* Loew, Centur. VI, 99. — Cuba.

Desmometopa.

Loew, Centur. VI, 96; 1865.

* *latipes* Meigen, etc. — Europe and North America (Distr. Columbia; Pennsylvania; Lw. *in litt.*).

* *M nigrum* Zetterstedt, Dipt. Scand. VII, 2743 (*Agromyza*). — Sweden; Malta, also Cuba (the latter Loew *in litt.*).

* *tarsalis* Loew, Centur. VI, 96. — Cuba.

Agromyza.

Fallen, Agromyz.; 1823.

* *aeneiventris* Fallen, etc. — Europe and North America [Loew *in litt.*].

* *angulata* Loew, Centur. VIII, 87. — Pennsylvania.

* *coronata* Loew, Centur. VIII, 89. — Pennsylvania.

invaria Walker, Trans. Ent. Soc. N. S. IV, 232. — United States.

jucunda v. d. Wulp, Tijdschr. v. Ent. 2^d Ser. II, 161; Tab. V, f. 19, 20. — Wisconsin.

* *longipennis* Loew, Centur. VIII, 90. — Distr. Columbia.

* *magnicornis* Loew, Centur. VIII, 86. — Pennsylvania.

* *marginata* Loew, Centur. VIII, 91. — Distr. Columbia.

- **melampyga* Loew, Centur. VIII, 88. — Distr. Columbia.
- **neptis* Loew, Centur. VIII, 93. — Nebraska.
- **parvicornis* Loew, Centur. VIII, 92. — Distr. Columbia.
- **setosa* Loew, Centur. VIII, 83. — Distr. Columbia.
- **simplex* Loew, Centur. VIII, 84. — Pennsylvania.
- **tritici* Fitch, Reports I, 303; Tab. II, f. 1. — New York.
- **virens* Loew, Centur. VIII, 85. — Pennsylvania.

pictella Thomson, Eugen. Resa, 609. — California.

platyptera Thomson, Eugen. Resa, 608. — California.

Odontocera.

Macquart, Hist. Nat. Dipt. II, 614; 1835.

- **dorsalis* Loew, Centur. III, 98. — Distr. Columbia.

Phyllomyza.

Fallen, Ochtidia; 1823.

- **nitens* Loew, Centur. VIII, 82. — Pennsylvania.

Ochthiphila.

Fallen, Ochtidia; 1823. ⁽³²⁸⁾.

lispina Thomson, Eugen. Resa, 599. — California.

Observation. *Ulidia metallica* Bigot, in R. de la Sagra etc. 825 belongs to the Agromyzidae, according to Loew, Monogr. III, 202; however in the same volume page 65, he says it may be a *Chrysomyza*, a genus allied to *Ulidia*.

FAMILY PHYTOMYZIDAE.

Phytomyza.

Fallen, Phytomyz.; 1823.

- **eleatidis* Loew, Centur. III, 100. — Distr. Columbia.
- diminuta* Walker, Trans. Ent. Soc. N. S. IV, 232. — United States.
- **gennalis* Loew, Centur. VIII, 100. — Distr. Columbia.
- **ilicicola* Loew, Centur. Vol. II, 290. — Distr. Columbia.
- Phytomyza ilicis* Loew, Centur. III, 99 (change of name by Loew).
- **nervosa* Loew, Centur. VIII, 99. — Distr. Columbia.
- solita* Walker, Trans. Ent. Soc. N. Ser. V, 232. — United States.
- obscura* Loew, Centur. VI, 191; Meigen, System. Besch. VI, 191; Staeger, Groenl. Antl. 369, 55. — Europe and Greenland.

FAMILY ASTEIDAE.

Sigaloëssa.

Loew, Centur. VI, 100; 1865. ⁽³²⁹⁾.

- **bicolor* Loew, Centur. VI, 100. — Cuba.

Asteia.

Meigen, System. Besch. V, 88, 1830; improved in *Astia* by Loew, Centur. VI, 100. ⁽²³⁰⁾.

tenuis Walker, Trans. Ent. Soc. Phil. V, 331. — United States.

FAMILY BORBORIDAE. ⁽²³¹⁾.**Borborus.**

Meigen, in Illiger's Magaz. II, 1803; *Copromyza* Fallen, Stenh.

annulus Walker, List, etc. IV, 1129. — Huds. B. Terr.

**equinus* Fallen, Stenhammar, etc. — Europe and North America [Loew. Sillim. J. N. S. XXXVII, 318].

carolinensis R. Desvoidy, Myod. 811, 2 (*Scatophora*). — Carolina.

**venalicius* n. sp. see note ⁽²³²⁾. — Africa and Cuba [common, probably imported in slave-ships; about the specific identity, see Loew, Monogr. I, 47].

FAMILY PHORIDAE.

Trineura.

Meigen, Illiger's Magaz. II, 1803.

aterrima Fabricius, Meigen, etc.; Walker, List, etc. IV, 1138. — Europe; Huds. B. Terr. (Walker).

Gymnophora.

Macquart, Hist. Nat. Dipt. II, 631; 1835.

**arcuata* Meigen, etc. — Europe and North America (Loew *in litt*).

Phora.

Latreille, Hist. Nat. des Crust. et des Ins. XIV; 1804.

**atra* Fabricius, etc. — Europe and North America [Loew *in litt*].

**clavata* Loew, Centur. VII, 95. — Distr. Columbia.

fuscipes Macquart, Hist. Nat. Dipt. II, 627. — Europe and North America [Huds. B. Terr. Walker, List, etc. IV, 1136].

**ineisuralis* Loew, Centur. VII, 98. — Distr. Columbia.

**microcephala* Loew, Centur. VII, 96. — Distr. Columbia.

**nigriceps* Loew, Centur. VII, 99. — Distr. Columbia.

**pachyneura* Loew, Centur. VII, 97. — Alaska.

**rufipes* Meigen, System. Besch. VI, 216. — Europe and North America, Huds. B. Terr. [Walker, List, etc. IV, 1136; also Loew *in litt*].

cornuta Bigot, R. de la Sagra etc. 827. — Cuba.

**scalaris* Loew, Centur. VII, 100. — Cuba.

III. DIPTERA PUPIPARA.

FAMILY HIPPOBOSCIDAE. (²²²).

Olfersia.

Wiedemann, Auss. Zw. II, 605; 1830.

- * *americana* Leach, Eprob. II, 2, Tab. XXVII, f. 1—3 (*Feronia*); Wied., Auss. Zw. II, 606, 1; Macquart, Hist. Nat. Dipt. II, 641, 4. — Georgia (Leach); Illinois, Massachusetts; Dallas, Texas (On *Bubo virginianus*, *Buteo borealis*.)

Hippobosca bubonis Packard's Guide etc. 417.

- albipennis* Say, J. Acad. Phil. III, 101; Compl. Wr. II, 87. (On *Ardea Herodias*.)

- * *ardeae* Macquart, Hist. Nat. Dipt. II, 640. — Europe and North America [Loew, Sillim. J. XXXVII, 318].

- brunnea* Olivier, Encycl. Méthod. VIII, 544, 6 (*Ornithomyia*). — Carolina.

mexicana Macquart, Dipt. Exot. II, 3, 278, 5. — Mexico.

propinqua Walker, List, etc. 1141. — Jamaica.

suleifrons Thomson, Eugen. Resa, etc. 611. — Panama.

Ornithomyia.

Latreille, Hist. Nat. des Crust. et des Ins. XIV, 402; 1804.

avicularia Linné, Leach, Meigen, etc. — Europe and North America [the latter according to v. d. Wulp, Tijdschr. 2^a Ser. IV, 80].

fusciventris Wiedemann, Auss. Zw. II, 611, 9. — Kentucky.

nebulosa Say, J. Acad. Phil. III, 102, 1; Compl. Wr. II, 87 (on *Strix nebulosa*); Wiedemann, Auss. Zw. II, 610, 6. — North America.

- * *pallida* Say, J. Acad. Phil. III, 103, 2; Compl. Wr. II, 87 (on *Syleia Stalis*); Wiedemann, Auss. Zw. II, 610, 7. — North America.

- * *erythrocephala* Leach, Eprob. Ins. 13, 3; Tab. XXVII, f. 4—6; Wiedemann, Auss. Zw. II, 610, 5. — Brazil (Leach); Jamaica (Walker, List, etc. IV, 1143); Cuba. (I received a specimen from Quebec, Canada. — O. S.).

fulvifrons Walker, List, etc. IV, 1145. — Jamaica.

unicolor Walker, List, etc. IV, 1144. — Jamaica.

vicina Walker, l. c. 1144. — Jamaica.

Observation. *Ornithomyia laticornis* Macquart, Hist. Nat. Dipt. II, 642, 3 etc., of my first Catalogue is omitted here, since my attention was drawn to the *erratum* in the same volume, where the locality: Cuba, is recognized as erroneous.

Novum genus? ⁽³³⁴⁾.

confluens Say, T. Acad. Phil. III, 103, 3; Compl. Wr. II, 87 (*Ornithomyia confluenta*); Wiedemann, Auss. Zw. II, 611, 8 (translation from Say). — Pennsylvania.

Lipoptena.

Nitsch, in Germ. Mag. f. Ent. III, 310; 1818; *Leptotena* Macq.;
Haemobora Curtis, etc.

depressa Say, J. Acad. Phil. III, 104; Compl. Wr. II, 88 (*Melophagus*);
Wiedemann, Auss. Zw. II, 614, 2. — Pennsylvania, on *Cervus virginianus*. [Referred to this genus by Loew *in litt.*]

Melophagus.

Latreille, Hist. Nat. des Crust. et des Ins. XIV, 402; 1804.

* **ovinus** Linné, Meigen, System. Besch. VI, 236; Tab. 65, f. 16; Leach, Curtis, etc.; Fitch, Survey of Wash. Co. etc. 797. — Europe and North America. (See Loew, Sillim. J., 1. c)

Hippobosca.

Linné, Fauna Suec.; 1761.

* **equina** Linné, etc.; Kirby, N. Am. Zool. Ins. 316. — Europe and North America. [See Loew, Sillim. Journ. N. S. XXXVII, 318.]

FAMILY NYCTERIBIDAE. ⁽³³⁵⁾.**Strebla.**

Wiedemann, Analecta etc. 1824; Auss. Zw. II, 612; 1830.

* **vespertilionis** Fabricius, System. Antl. 339, 6 (*Hippobosca*); Wiedemann, Anal. Ent. 19, f. 7; Auss. Zw. II, 612, 1; Tab. X, f. 13; Macquart, Hist. Nat. Dipt. II, 637, 1; Tab. XXIV, f. 7. — South America (Fabr.); Jamaica (Walker, List etc. IV, 1146); San Domingo, Cuba [Loew *in litt.*].

Strebla arium Macquart, Dipt. Exot. 5^e Suppl. 127, 2. — San Domingo (on pigeons and parrots). [Loew *in litt.*]

Strebla Wiedemannii Kolenati, Horae Soc. Ent. Ross. II, 96; Tab. XV, f. 36 [Loew *in litt.*].

Megistopoda.

Macquart, Ann. de la Soc. Ent. de Fr. 1852, 331 - 333.

* **Pilatei** Macquart, Ann. Soc. Ent. Fr. 1852, 331; Tab. IV, Nr. 4. — Mexico (Macq.). — Cuba.

Megistopodia Pilatei Kolenati, Horae Soc. Ent. Ross. II, 89; Tab. XIV, f. 32.

Nycteribia.

Latreille, Hist. Nat. des Crust. et des Ins. XIV, 403; 1804. ⁽³³⁵⁾.

No N. A. species is as yet described. The M. C. Z. possesses a specimen from California.

NOTES.

1. **Cecidomyia.** On this family, the following papers may be consulted:

H. Loew. Dipterologische Beiträge IV, 1850

The same. Zur Kenntniss der Gallmücken, in the Linnaea Entomol. V, 1851.

J. Winnertz. Beitrag zu einer Monographie der Gallmücken, in Linnaea Entomol. VIII, 1854; with four beautiful plates.

The same. Heteropeza und Miastor, in the Verh. Zool. Bot. Gesellsch. 1869.

The same. Die Gruppe der Lestremiinae, in the same volume. Bergenstamm und Löw (Fr.), Synopsis Cecidomyiarum, in the Verh. Zool. Bot. Gesellsch. 1876. A synopsis of all the literature on the subject; very accurate and complete.

C. R. Osten Sacken. On the North American Cecidomyiidae. — In the Monographs of N. A. Diptera, Vol. I (a survey of the previous publications concerning the classification, habits etc.).

In an inaugural Dissertation, entitled: Revision der Gallmücken, Münster 1877, Mr. F. A. Karsch changes the existing nomenclature of the Cecidomyiidae, in virtue of the principle of priority. What we call now Cecidomyia, he calls Dasyneura Rondani; our Diplosis Loew, is his Cecidomyia Meigen; Clinorhyncha Loew is to be Ozirhyncus Rondani; Epidosis Loew is Porricondyla Rondani; Hormomyia Loew is Oligotrophus Latreille.

The general adoption of these changes does not seem at all desirable.

2. **Cecid. grossulariae Fitch.** In the Monogr. I, p. 7, Mr. Loew stated that this species is an *Asphondylia*, a statement which I repeated on faith, l. c. p. 189. Dr. Fitch's description renders it evident that his species is a true *Cecidomyia*. It is probable that, in making the above-quoted statement Mr. Loew had in his mind the European *Cecid. ribesii* Meigen, which, as appears from Meigen's description, must be an *Asphondylia*.

3. **Cecid. salicis batatas.** „This gall seems to agree in its structure with that of *Cecid. salicis* Schrank, on European willows.“ Bergenstamm & Löw, l. c. p. 71.

4. „The five kinds of leaf-accumulations and leaf-rosettes, which Mr. Walsh describes and which he attributes to his Cecidomyiæ gnaphaloides, rhoëides, strobiloides, strobiliscus, coryloides, seem to be

the produce of the same species of *Cecidomyia*; the differences in the shape of the gall seem to be due, not to a specific difference among the insects, but to the specific difference of the willows on which they occur. The trifling differences between the flies, as described by Walsh, as well as the circumstance that each of those five forms of galls harbours only a single larva, strengthen this view. The European relative of this species, *Cecid. rosaria* Loew, likewise produces differently shaped galls on different species of willows." Bergenstamm and Löw, l. c. p. 71.

5. *Cecid. salicis-strobiloides*. „This gall is the exact counterpart of the gall of *Cecid. rosaria* Loew, on the European *Salix purpurea*." Bergenstamm and Löw, l. c. p. 72.

6. Several of the galls which I described as occurring on hickories, as *caryae*, *caryaecola*, *holotricha*, *persicoides*, even *tubicola*, and other, undescribed forms, sometimes occur promiscuously, on the same leaf. It remains to ascertain, whether they are really produced by different species of *Cecidomyia*, or whether most of them are not merely modifications in shape and degree of pubescence, of the gall of *Diplosis caryae*.

7. *Cecidomyia poculum* I am very much inclined now to believe that the larva of a *Cecidomyia*, which I found in the gall that I thus named, was a mere inquiline, and that the gall was the work of a Cynipid. The ground for my belief is, that there is an analogous gall in Europe, that of *Neuroterus lenticularis*, which frequently harbours inquiline larvae of *Cecidomyiæ*. As long as the gall is on the leaf, no larva of a Cynipis can be found in it; it develops only when the gall falls to the ground. If my supposition is correct, this peculiarity of the gall of *Neuroterus* would explain why, in most cases, I did not find any larvae whatever in the gall *poculum*.

8. *Mycetophilidae*. For the definition of the genera see: Winnertz, Beitr. zu einer Monographie der Pilzmücken, in the Verh. Zool. Bot. Gesellsch. 1863, p. 637—964. Mr. Loew's species were all referred by him to the new genera formed by Winnertz. The older species by Say, Wiedemann, etc., unless identified, I have left in the genera in which they were described.

9. *Empheria* is preoccupied by Hagen in the Psocidae, 1856. *Glaphyroptera* by Heer, fossil Buprestidae, 1852.

10. *Sciara* and *Trichosia*. Compare Winnertz, Beitrag zu einer Monographie der Sciarinen, in Verh. Zool. Bot. Gesellsch. 1867.

11. *Simulium* There is a monograph of this genus by Fries; compare also Zetterstedt, Meigen, Schiner.

12. *Bibio*. A monograph of the European species by Loew, in Linnaea Entomologica, 1, p. 342. In quoting Geoffroy, here and elsewhere, I rely upon Schiner, because I possess only the second edition of Geoffroy.

The name *Bibio* was first introduced by Geoffroy in 1764; he included five species in it, three of which were *Bibio*'s in the present meaning and two *Psychodæ*.

The name *Hirtea* appeared first in Scopoli, *Entomologia Carniolica* 1763, where *Hirtea longicornis* Stratiomys strigata F.) is described. — For an unexplained reason, Fabricius, in the Supplement to his *Entomologia Systematica*, published in 1798, took up the name *Hirtea* (without any reference to Scopoli) and applied it to a number of species, the majority of which are Bibio's. At the same time, the majority of Fabricius's Bibio's are our Therevae, and Fabricius's Therevae are our Phasiae, Trichopodae etc.!

Meigen followed Fabricius's precedence about *Hirtea* in his earlier work: *Klassifikation* etc. (1804), and Fabricius quoted Meigen in his *System. Auliatiorum* (1805). In his principal work, however, (1818) Meigen rejected the name *Hirtea*, and very properly adopted Geoffroy's earlier name *Bibio*. Later writers have followed Meigen's example, except Zetterstedt, who maintains the name *Hirtea*, for our Bibio.

It is very probable that *Stratiomyia longicornis* Scopoli (Syn. strigata Fabricius), which shows several peculiarities of structure, will, by and by, form a separate genus, and then *Hirtea* will be the proper name for that genus.

13. *Bibio articulatus* Say. According to Loew, *Centur. V*, 10, *Nota* this species belongs in the vicinity of *B. abbreviatus*, *fraternus*, *nigripilus*, but the descriptions, both of Say and of Wiedemann are not explicit enough for identification.

14. About *Plecia*, *Penthetria*, *Hespernus*, etc. compare Loew, *Berl. Entom. Z.* II, p. 101. Also by the same: *Berichtigung der generischen Bestimmung einiger fossilen Dipteren*, in the *Zeitschr. f. Ges. Naturw.* Vol. XXXII, p. 80 (1868).

15. About *Scatopse*, see Loew, *Linnaea Entom.* I, p. 324, a monograph of the European species. Also another paper, by the same, in the *Zeitschr. f. d. Ges. Naturw.*, Vol. XXXV. (1870).

16. The identity of *Arthria* Kirby with *Aspistes* and of *Arthria analis* with *Aspistes borealis* seems to me very probable, some discrepancies between the descriptions notwithstanding.

17. *Blepharoceridae*. Compare Loew's Monographic Essay: *La famiglia dei Blepharoceridi*, in the *Bollet. della Società Entom. Italiana*, Vol. I, p. 85 (1869) — The same author's: *Revision der Blepharoceridae* (in the *Schles. Zeitschr. f. Entomol. Neue Folge*, Heft VI, Breslau 1877) is in the main a reproduction of the Italian paper, but being of later date contains several additions.

In the *Monographs* etc. IV, p. 3, I suggested the possibility of a relationship between the *Blepharoceridae* and the *Ptychoptera*. But since I know the *Blepharoceridae* better, I am less inclined to perceive that relationship. In the structure of the eyes this family stands nearer to *Simulium* and *Bibio*.

18. *Asthenia americana* Walker, *List*, etc. I, p. 28, according to Loew, *Monographs* I, p. 8, is not a *Blepharocera* at all, and any one, who reads the description, will agree with this conclusion. It seems furthermore that Mr. Walker's type is not to be found in its place at the British Museum; compare Mr. Haliday's note in the *Bolletino della*

Società Entomol. Italiana, Vol. I, p. 99. The fact that Mr. Walker had not the slightest idea of the true characters of this family, is further proved by his having described a true *Blepharocera* as an *Asyndulum*.

19. *Paltostoma*. I will add to Dr. Schiner's description, that the palpi are distinct; the posterior tibiae bear *one* long, slender spur; ocelli large, distinct; eyes separated by a broad front, pubescent, facets of the same size on the whole surface; wings with a square anal angle, like that of the other species of the family and unlike their representation on the figure in the Novara-volume. Altogether, the genus bears out the character of the family, as drawn by Loew (Revision der Blepharoceridae, p. 83).

The two mexican specimens, which I have seen, are much smaller than *P. superbicus* from South America, which I saw in Vienna, but there is a great deal of analogy in the coloring of the two, and they may possibly belong to the same species. In Turin I had no copy of the Novara work at hand, in order to compare the description with those specimens.

20. *Culex*. In the British Museum I found the following typical specimens of Mr. Walker's species: *excitans*, one specimen, *exercians* two, *impatiens* four (♂♀), *impiger* two, *implacabilis* one, *prorocans* two, *stimulus* one, *territans* two, *preturbans* one. Many of them are unrecognizable. *Culex conterrrens* Walker, a fragment, is evidently *C. ciliatus*; *Culex sollicitans* is *C. taeniorhynchus*.

21. *Anopheles*. About the european species of this genus, compare Loew, Dipterol. Beiträge I.

22. *Chironomidae*. Mr. van der Wulp has made a particular study of this family and has introduced several new generic groups. Compare his articles in the Tijdschr. Entom. Nederl. Ver. 1859, T. 2, 1, p. 3—11; also l. c. in 1874; but especially the chapter on Chironomidae in his larger work: Diptera Neerlandica.

23. *Tanypus*. There is a Monographia Tanypodum Sueciae by Fries, 1823.

24. *Ceratopogon*. J. Winnertz, Beitrag zur Kenntniss der Gatt. *Ceratopogon*, in the Linnaea Entomol., Vol. VI (1852), contains a monograph of the european species, with remarkably fine plates. Unfortunately, Mr. Winnertz did not subdivide the genus in smaller genera, but left it, as it was, and still is, a congeries of heterogeneous forms. A beginning of such a subdivision may be found in Westwood's Synopsis, etc., p. 125; compare also Rondani, Prodr. I, p. 175, and v. d. Wulp, Diptera Neerlandica.

25. On the *Tipulidae brevipalpi*, compare my Monograph, in the 4th Volume of the Monographs of North American Diptera, published by the Smithsonian Institution, in January 1869.

For many years, I have made a particular study of the Tipulidae, and of the *brevipalpi* especially. This study has enabled me to contribute something towards a better distribution of this group, but has, at the same time, thoroughly opened my eyes to the still remaining blanks in that classification. For from concealing there defects, I have

carefully pointed them out in my volume. The Eriopterina especially, require a more thorough investigation, based on more abundant materials than I had at my disposal; the relations of *Goniomyia* to *Gonophomyia* must be more clearly defined; the genera *Cladura*, *Signatomea*, *Phyllolabis*, as they stand now, come within dangerous proximity of the *Limnophilina* and their true position is still a problem. In the *Limnophilina*, the numerous species of *Limnophila*, require a better grouping: I have shown, for instance, on p. 201 and 230, that the presence of four, or of five posterior cells, is an altogether secondary character and that some species with four cells, like *C. quadrata*, are very closely related to some other species, with five cells. Numerous hints of that kind will be found in my volume, hints which, at that time, it was not possible as yet to develop: but in order to be made use of, there hints must be sought in that volume, and not in the adaptations of my classification in other writers. Most of the entomologists who have adopted my classification, have become acquainted with it through Dr. Schiner's work. But that work was based on my earlier essay (1859), and does not contain the improvements, introduced in my later, and more voluminous, publication of 1869.

26. *Limnobia simulans*. I prefer to retain the name which I gave to this species: Mr. Walker's description is absolutely unrecognizable, as I have shown in Monogr. IV, p. 41.

27. *Trochobola argus*. This species hardly differs from the european *Trochobola annulata* Lin. (Syn. *imperialis* Loew). During my presence in London in July 1877 I had occasion again to see Linné's type of *Tipula annulata* in the Linn. Society and can only confirm the statement which I made after my previous visit to the same institution, twenty five years ago: that *Tipula annulata* Lin. is the same as *Limnobia imperialis* Loew. (See Stett. Ent. Zeitschr. 1857, p. 90.) The specimen is a fragment, but the supernumerary crossvein is distinctly visible on the wing. Thus much in answer to Prof. Zetterstedt's doubts in the Dipt. Scand. Vol. XIV, p. 6534. The fact that Prof. Zetterstedt, during his long dipterological career, never came across a swedish specimen of this insect, is curious. By and by it will be found there. In the mean time, Prof. Mik in Vienna showed me specimens which he caught in Upper Austria and in Gastein, Styria. The Imperial Museum in Vienna (Collect. Winthem), contains a specimen from Lyon, France. It seems to be a northern and alpine species; and many alpine forms (for instance *Parnassius Apollo*), occur in the mountains of the Dauphiné not far from Lyon. Prof. Mik also found *Limnobia caesarea* O. S. near Gastein.

28. *Diotrepha* nov. gen. Related to *Orimarga* (compare the figure of the wing in Monographs, IV, Tab. I, f. 8), but the posterior branch of the fourth vein is not forked, so that there are only *three* posterior cells; the small crossvein is nearer to the apex of the wing; the great crossvein, on the contrary, is much nearer to the root of the wing, far anterior to the origin of the second vein. Being thus placed in a situation where the longitudinal veins come very close together, this

crossvein is short and may be easily overlooked. The wings are very narrow; the body delicate, the legs long and very slender; empodia distinct.

D. mirabilis n. sp. About 6 mm. long, brownish, very slender, with long, exceedingly delicate, white legs; the tips of the femora and of the tibiae, brown. — Georgia; Texas.

I am not able, at present, to give a better description of this species; still, its characters are so striking that it will be easily recognized. I first took it in Georgia, in 1858, and did not publish it, not knowing where to place it. Later, I sent it to Dr. Loew and did not have it before me at the time of the publication of Monographs, Vol. IV. During my visit to Dr. Loew in 1877, I saw the specimen again and took down a few notes about its characters, thinking that it was related to *Thaumastoptera* Mik. But I have seen the latter in Vienna since and have given up all idea of a relationship.

The type of *D. mirabilis* is now in the Mus. Comp. Zool. in Cambridge, Mass. I have seen a second specimen, apparently of the same species, taken by Mr. Boll in Texas. A specimen from Cuba in Mr. Loew's collection also seems to belong here.

The name *Diotrepha* means *fed by the Gods*.

29. *Rhypholophus fascipennis* Zett. According to Dr. Stein, who quotes Loew *in litt.*, this may be the same as the *R. phryganopterus* of Kolenati (Stein, in Stett. Ent. Zeitschr. 1873, p. 241):

30. *Erioptera* The characters of the subdivisions, established by me in this genus were explained in the Monogr. IV, 151—152. In their application to species from other parts of the world than North America, some of them will hold good, others will require to be remodelled. The subgenus *Erioptera* maintains all its characters in the European species *taenionota* M., *flavescens* F., *fascipennis* M. (as I saw them named in Mr. Kowarz's collection). *Erioptera maculata* M. is a true *Acyphona*, agreeing in all generic characters with the American species of that subdivision. The definition which Dr. Loew gives of *Acyphona* (Besch. Europ. Dipt. III, 50) is incomplete and therefore misleading; he evidently based it on my statements in Monogr. Vol. IV, p. 158 only, and overlooked the detailed character of the subgenus, as given on p. 151—152. His *Acyphonae* therefore, are not *Acyphonae* in my sense at all. *Molophilus* is a very well-defined form, existing in Europe and North America. The definition of *Mesocyphona* will require remodelling, as I have stated in the „Western Diptera“, p. 199. I have not seen any European species, belonging in it. The structure of the forceps of the male, which undergoes very considerable modifications among the Eriopterae, in the surest guide towards the discovery of affinities; subdivisions, established without the use of that character, are worthless.

In the Monogr. Vol. IV, I have given my reasons for abandoning Dr. Schiner's arrangement of the *Eriopterina*. There is no reason for separating *Rhypholophus* from his *Dasyptera*; and, being united, the former name must be adopted as the earliest. *Trichosticha* Schiner is composed of the most heterogeneous elements: *T. maculata* is an

Acyphona; *T. trivialis* is a species which requires further study, and seems related to *Trimicra*; *T. ictérica* has an altogether different organisation and has been placed by Loew in his genus *Lipsothrix* (Besch. Europ. Dipt., Vol. III, p. 68); *T. imbuta* of which I had only a glimpse, seems to be an *Empeda*; the residue (*T. fuscipennis*, *flavescens*, *taenio-nota*) form the bulk of *Erioptera* Meigen, Division A, and should therefore retain that name, even in the ultimate subdivision of the genus: they are my *Eriopterae*, sensu strictiori.

These criticisms, will not, I hope, be considered disrespectful to those two writers, my seniors in Dipterology, and by far my superiors in the knowledge of most of its branches.

31. *Symplecta punctipennis*. Dr. Loew, in his Beschreibungen Europ. Dipteren III, p. 54, observes that Meigen, in his earlier work: *Klassifikation* etc. called the same species *hybrida*, a name which he afterwards changed, without explaining the reason, in *punctipennis*. Loew therefore recommends the reinstatement of that name, as the earliest. But why should we not, on the same ground, revive the generic name *Helobia* St. Fargeau, which is older than *Symplecta*, and call the species *Helobia hybrida*? And as *Symplecta punctipennis* has been used in all the works and catalogues of diptera in existence for more than half a century, we would never get rid of it, but would have to keep both names in our memory for ever. For this reason, I do not share the opinion of my esteemed friend and correspondent.

32. *Goniomyia*. I am aware of the existence of *Goniomyia* Agassiz (Mollusca), but the derivation, at well as the termination of that name are different.

33. *Limnophila humeralis* Say. Journ. Acad. Phil. III, 22, 5; Compl. Wr. II, 47. Wiedemann unites this species with *L. tenuipes* Say, apparently deriving his opinion from the comparison of original specimens. Nevertheless, Say does not seem to have been of the same opinion. In a MSS. note in his handwriting, which I found in a copy of Wiedemann's Anss. Zw., which he had used, he refers *L. tenuipes* to *L. gracilis* Wied. The book is now in the library of the Academy of Natural Sciences in Philadelphia. (Compare also Monogr. etc IV, p. 41.) A specimen in the Winthem collection in Vienna, which I take to be the type of the description of *L. gracilis*, in labelled *tenuis* W.

34. *Anisomera*. About the european species, compare Loew in the Zeitschr. f. Ges. Naturw. Vol. XXVI (1865).

35. *Eriocera californica*. In describing this species in the Western Diptera, I mentioned that *Megistocera chilensis* Philippi, was, to all appearances, likewise an *Eriocera*. But I have seen it since in Mr. Bigot's collection; it is a *Megistocera*, that is a Tipulid and not a Limnobiid.

36. *Ptychoptera*. The trophi of the larvae of this genus do not differ materially from those of the other Tipulidae; the characteristic dentate mentum is present. For this reason I am not inclined to follow Dr. Brauer in attaching to the fact, that the head of those larvae is not imbedded in the thoracic skin (as it is in other Tipulidae) such a

radical importance, as to justify the separation of the group as a distinct family. (Compare Verh. Zool. Bot. Ges. 1869, p. 844.)

37. *Ptychoptera metallica* Walk. The specimen in the Brit. Mus. is a mere fragment.

38. *Idioplasta*. In 1859 I had called this insect *Protoplasia*; in the Western Diptera, 1877, I adopted the more correct *Protoplasta*. But in the mean time, *Protoplasta* had been used in the Protozoa, so I prefer to give it up for *Idioplasta*.

I. Fitchii. I was quite recently that, for the first time, I saw a specimen of this insect again, after those two which I described twenty years ago. The specimen is in Mr. von Roeder's collection, in Hoym, Germany. It is a male, and has a forceps with very long branches. This proves that the specimens which I described and about the sex of which I was uncertain, were females. And it further proves that the female in this genus does not have the sabre-shaped, projecting ovipositor, which is usual among the Tipulidae. *Idioplasta*, in this respect, resembles *Bittacomorpha*, and differs from *Ptychoptera*.

The specimen in question was taken in Georgia, by Mr. Morrison, a collector who has the faculty of ferreting out the rarest insect's, whatever country he undertakes to explore.

39. *Tipula*. Compare the important remarks on the structure of the genitals of *Tipula*, in Loew's Besch. Europ. Diptern, Vol. III, p. 7—9.

40. *Tipula nodulicornis*. As to the synonymy of this species, I follow Mr. Schioedte's authority, although I expressed some doubts about it in the Proc. Bost. Soc. Nat. Hist. Dec. 6. 1876.

41. *Tipula casta* Loew, Syn. *cunctans* Say. There is some error at the end of Say's description, as the venation of a *Tipula* cannot well be like that of *Limnobia* (*Geranomyia*) *rostrata*, to which he apparently refers. This error prevented Dr. Loew from identifying Say's description.

42. Mr. Walker's *Tipulæ*. After taking some notes from the types in the Brit. Mus. I hoped to establish the synonymy of some of Mr. Walker's species with Dr. Loew's. But upon comparing Mr. Walker's descriptions with the specimens, I found that they did not agree with what I thought I had seen. So I quote such synonymies with a query.

Tipula alterna Walk. I suspect the synonymy from a short note I made in London in 1859; Mr. Walker's description however renders it doubtful.

43. *Tipula fuliginosa*. Although this species is not rare, I have never seen the male yet.

44. *Ctenophora*. In the Proceedings Entom. Soc. Phil. May 1864, I published an article: Description of several new North America Ctenophoræ; an unsatisfactory performance, because I attempted to work without sufficient material.

45. *Ptilogyna fuliginosa* Macquart (non Say) Dipt. Exot. I, 1, p. 46, 1; Tab. III, f. 2, is omitted, because it is an Australian, and not a North American, species. I have seen the original type of Macquart's in Lille. It is a very well preserved female specimen, with pectinate

antennae, labelled North America. But I have also seen several specimens of the same species in Mr. Bigot's collection in Paris, all from Australia. Macquart taking the species for north american, had erroneously identified it with *Ctenophora fuliginosa* Say, which is a Tipula. Dr. Loew (Linn. Entom. V, p. 392) noticing this error, proposed to call this species *Ptilogygia Macquartii*. As it now appears that the species belongs to a different country, there is no reason for not calling it *Ptilogygia fuliginosa* Macquart, only striking out the quotation from Say. *Ptilogygia picta* Schiner, Novara, p. 33 from Sidney is the same species, as any one will perceive by comparing Dr. Schiner's description, with Macquart's figure.

46. **Bolbomyia.** The passage, quoted from Dr. Loew's „Bernstein u. Bernsteinafauna“ reads as follows: „A second genus, more or less related to Ruppelia, may be placed among the Xylophagidae, its somewhat aberrant venation notwithstanding. I call it *Bolbomyia* and distinguish two species. Characteristic is the shape of the antennae; the third joint consists of four or five divisions, the first of which is much larger and swollen.“ — The other passage, quoted from Silliman's Journal, only contains a remark about the difficulty of placing this species in any of the adopted families. A passage of the same import is that in the Monographs, Vol. I.

47. **Coenomyidae.** I restore this family, adopted by most of the previous authors, but suppressed in Loew's Monographs, Vol. I. It seems to me somewhat premature to unite it with the Xylophagidae.

47a. The name *Sicus* was first used by Scopoli (1763), for a species of *Myopa*. — Fabricius, in the Supplement to his Entomologia Systematica (1798), arbitrarily misapplied it to *Coenomyia*, but the latter name having been published two years earlier by Latreille, was maintained.

Latreille (Hist. Nat. des Crust. et des Ins. 1804), used the same name *Sicus* in a third, altogether different, sense, for the genus now called *Tachydromia*. As such, it appears on Meigen's plate 23, in the third volume of his principal work. In the letterpress, Meigen rejects *Sicus* and maintains *Tachydromia*, introduced by himself in 1803. Latreille preserved the name *Sicus* (for *Tachydromia*) even in his last work, Familles Naturelles (1825).

Finally, Dr. Schiner revived *Sicus* for the species, for which it was originally intended by Scopoli.

48. **Arthropeas leptis** n. sp. Brownish-gray, wings unicolorous. slightly tinged with pale brownish-yellow. Length 6—7 mm.

Body brownish-gray, sparsely beset with minute yellowish, erect pile. Thoracic dorsum brown, with two yellow lines, separating the three usual stirpes, the intermediate one of which is faintly geminate. Head dull grayish, but front and vertex brown, except a narrow gray margin along the orbit. Antennae blackish-brown. Legs brown, tibiae yellowish-brown; coxae grayish. Wings unicolorous, slightly tinged with pale-brownish; stigma brownish-yellow. Halteres yellow, with a brown knob.

Hab. White Mts., N. H. (E. P. Austin; his labels were marked: „woods“ and „alpine“). Three females, only one of which is well preserved; the other is greasy; the third teneral, and for this reason of a uniformly reddish color.

This remarkable insect looks like a Leptid with the antennae of *Coenomyia*. I refer it to the genus *Arthropoas* Loew, Stett. Zeit. 1850, with which it seems to agree in the generic characters. It differs from the figures given by Dr. Loew, in having the anal cell open, the discal narrower, the posterior cells 2, 3, 4 longer. The second posterior cell is very narrow at base and the upper branch of the third vein is not bisinuate. I cannot at present compare this species to *A. americana*, and cannot therefore tell whether the structure of the face is the same in both. In *A. leptis* two deep, diverging furrows, run from the base of the antennae to the oral edge, and divide the face in three portions. Besides *A. sibirica*, *americana* and *leptis*, a species of the same genus, *A. nana*, occurs in amber. The doubts of Dr. Loew about the systematic position of *Arthropoas* are revealed in the fact, that he refers it to the *Coenomyiidae* in the Stett. Zeit. and to the *Acanthomeridae* in the pamphlet: Der Bernstein und die Bernsteinfauna, although both papers appeared in the same year 1850.

The genus *Coenura* Bigot, from Chili (Ann. Soc. Entomol. de France, 1857) is most closely allied to *Arthropoas* and has even, in the coloring of the species described a certain family resemblance to *A. sibirica*. In fact it remains to be shown yet, in what the difference between the two genera consists..

49. *Beris*. Compare Loew, Stett. Entom. Z. 1846, p. 219 sqq.: Bemerkungen über die Gatt. *Beris*.

50. *Exaireta* Schiner. There exist the following, similar names: Exaerete, Hymenopt. 1848; Exaeretus, Hemipt. 1864; Exaereta, Coleoptera 1865. About the relation of *Exaireta* to *Diphysa* Macq. compare Nowicky, Beitrag zur Kenntniss der Dipterenfauna Neuzeelands, Krakau, 1875, p. 12.

51. About *Sargus* and the allied genera, see Loew's essay in Verh. Zool. Bot. Verein 1855. A great deal remains to be done as yet for the classification of the exotic species of *Sargina*. I did not attempt to refer the species which I have not seen to the newly-formed genera to which they may belong, but left them in the genus *Sargus* in the old acceptation.

52. As there is an earlier *Chrysomyia* R. Desvoidy, 1830, I revived the name of *Chloromyia* Duncan, in my Western Diptera, p. 212. Macquart himself acknowledged the priority of *Chrysomyia* Desvoidy in Ann. Soc. Ent. 1847, p. 75.

53. *Ptecticus*. In Mr. Loew's paper on *Sargus*, where this genus is introduced, it is always called *Ptecticus*; on the plate, it is called *Plectiscus*, and Gerstaecker (Entom. Ber. 1855, p. 127) adopts the latter version. Mr. Loew told me that *Ptecticus* was the correct form.

54. *Oxycera*. Compare on the european species a paper by Loew, in his Diptrol. Beiträge, I, p. 11 (1845).

Also by the same: die europ. Arten d. Gatt. *Oxyecra*, in the Berl. Ent. Z. Vol. I, p. 21.

55. The paper by Gerstaecker referred to here is entitled: Beitrag zur Kenntniss exotischer Stratiomyiden, and is an important contribution to the classification of this family. The name *Euparyphus* can stay, although there is a much earlier genus *Euparypha* in the Mollusca, 1844.

56. Compare Loew, *Odontomyia*, in the Linnaea Entomologica, Vol. I, p. 467, a review of the European species.

57. *Odontomyia limbipennis*. The label in Macquart's handwriting in Mr. Bigot's collection bears *America*, with a query; the query is omitted in the Dipt. Exot. I doubt that this is a North American species.

58. Compare *Stratiomys* by Loew, in Linn. Ent., Vol. I, p. 462. Review of the European species.

Also Gerstaecker, Linn. Ent. XI. p. 317, where some important remarks on exotic species will be found.

59. In Dr. Gerstaecker's article on exotic *Stratiomyidae* (Linn. Ent. Vol. XI, 1857) the genus *Cyphomyia* is treated monographically and with great completeness. He enumerates twenty four species.

A Synoptic List of the known *Cyphomyiae* is given by Bigot, Ann. Soc. Ent. 1875, p. 483.

60. *Clitellaria*. Compare Loew's remarks about this genus and *Ephippium*, in his Besch. Europ. Diptern, Vol. III, p. 73.

61. There is a *Rondania* Bigot (Essai d'une Classific. 1853, Tipulida), and a still earlier *Rondania* R. Desvoidy 1850, Muscida.

62. A monograph of the European species of *Nematelus* is given by Loew, in the Linn. Ent., Vol. I. See also Loew, Besch. Europ. Dipt. II, p. 44, obs. 2.

63. Compare Loew: Revision d. Europ. *Pachygaster*-Arten, in the Zeitschr. f. Ges. Naturw. Vol. XXXV; 1870.

64. Compare: Osten Sacken, Prodrôme of a Monograph of the Tabanidae of the United States (in the Memoirs of the Boston Society of Natural History, Vol. II, 1876, p. 365—397 and p. 421—479; and a Supplement p. 555—560).

65. *Pangonia*. Compare: Notice sur le genre *Pangonie*, by Macquart, Ann. Soc. Ent. Fr. 1857, p. 429—438, Tab. XV; and Loew, Neue Dipt. Beitr. VI, p. 23; 1859 (European species).

Macquart, l. c. says that the genus *Pangonia* was established by Latreille, in the *Dict. d'Hist. Naturelle* of Déterville. I cannot now verify this quotation; at any rate the publication cannot have been earlier than 1802, because the dictionary bears the dates of 1802—1804.

66. *Silvius isabellinus* Wiedemann, the type of which I have seen in the Berlin Museum, is not a *Silvius*, but a *Pangonia*. It looks like a very pale-colored *Pangonia pigra* and may be that very species.

67. About the European species of *Chrysops*, compare: Loew, Verh. Zool. Bot. Ges. 1858, p. 613—634.

The knowledge of this genus and the proper method for the discrimination of the species date from this paper. Descriptions of earlier

writers, even those of the usually so accurate Wiedemann, are not to be relied on. I had an opportunity to convince myself of it, in Vienna. My examination of Wiedemann's types was confined to *Chrysops obsoletus*, Wied., as the type of *C. lugens* must be in Copenhagen, that of *plangens* in Berlin, and *C. floridus* and *vittatus* cannot be doubtful; *C. fuliginosus*, which should be in Vienna, I did not find. *C. obsoletus* is represented in Winthem's collection by a single female, marked as a type. This specimen does not agree with Wiedemann's own description, because he compares the wings of *obsoletus* to those of *C. lactus* from Brazil, which species has *both* basal cells hyaline, while the typical specimen in question has the first basal cell brown and answers the description of my *C. morosus*. In Wiedemann's collection there are three specimens; one of them bears a label in Wiedemann's handwriting „*obsoletus m.*“; it agrees with the above-mentioned specimen in Winthem's collection; so does the second specimen; but the third (evidently the one to which Wiedemann alludes in his description as a variety, received from Pennsylvania) is a different species, I think that which I described as *univittatus* Macq. In adjusting the nomenclature so as to bring it into agreement with these facts, we would only involve it into a hopeless confusion; and for this reason, it will be much preferable, I think, in this, as in other similar cases, to take the nomenclature of my Prodrôme, however imperfect, as the basis for future work, and to let alone the older descriptions. This applies of course, *a fortiori*, to the descriptions of Macquart and Walker.

68. *Chrysops obsoletus*. Wiedemann's description, as I have shown in the preceding note, agrees with my *C. obsoletus*, but disagrees with the typical specimens in his own collection. Furthermore, one of these types (mentioned in the description as a variety), belongs to a different species. For the reason stated in that note, I do not change the nomenclature of my Prodrôme.

69. *Chrysops quadrivittatus*. I did not possess this species, when I published my Prodrôme. I found it since among the specimens from Dr. Heyden's collecting in Nebraska, which years ago, I had communicated to Dr. Loew.

70. On the European species of *Silvius*, see Loew, Wien. Ent. Monatschr. 1858, p. 350; see also this genus in the same author's South African Fauna.

71. *Silvius gigantulus*. Mr. Loew mistook this species for a *Chrysops* and thus I overlooked it in preparing my Prodrôme and described it again as *Silvius trifolium*. Mr. Loew's name has of course, the priority, although it is somewhat unbecoming, since the species would have been gigantic for a *Chrysops*, but is not for a *Silvius*.

72. *Tabanus carolinensis* Macq. I have seen the types in the Jardin des Plantes. I do not know the species.

73. *Tabanus flavocinctus* Bell. is *Tabanus zonalis*; it cannot well come from Mexico. The specimen had been received from the Museum in Paris, and an error of locality must have occurred.

74. *Tabanus nigropunctatus*. This is a regular Therioplectes, the eyes are pubescent, and not glabrous, as mentioned in the Saggio etc. Wiedemann notices the ocelligerous tubercle!

75. *Tabanus*. Compare Loew, in the Verh. Zool. Bot. Ges. 1858, p. 573—612; a paper on the European species.

I have taken great pains, in Paris and in Vienna, to verify my identifications of Macquart's and Wiedemann's descriptions of *Tabanus* and I have had the satisfaction of finding them justified in all instances, with the single exception of *T. sulcifrons* Macq. In examining Wiedemann's and Winthem's collections in Vienna, great care should be taken to discriminate the true types, from specimens that are not types, even when labelled in Wiedemann's own handwriting. I have explained in the Preface, some facts bearing on the distribution of the types in those collections. The types of Wiedemann's N. A. Tabani are now all in Winthem's collection. The Tabani in Wiedemann's collection are sometimes wrongly named. Thus *T. Reinwardtii* is represented by three specimens, which are not that species at all; Wiedemann described a female with spotted wings; those three specimens are males and have immaculate wings. The true type is in Winthem's collection. In the latter collection, there are likewise several wrongly named Tabani, of course, not types. *T. zonalis* is labelled *T. flavipes* Wied. with a query; the type of Wiedemann's description is in Copenhagen. *T. fusco-punctatus* Macq. is labelled *variegatus* Fab. etc.

After having gone through the labor of examining so many types of earlier writers, I have become more than ever convinced of the necessity of basing our nomenclature on recognizable descriptions and not merely on typical specimens. And for this reason I have preferred to leave the nomenclature of my monograph, as much as possible, undisturbed, until another entomologist is in a position again to subject the whole genus to a thorough revision.

76. *Tabanus abdominalis* Fabr. is represented in the Museum of the Jardin des Plantes by two specimens, both of which have the first posterior cell closed, thus confirming the view I took of the synonymy in my *Prodrome*.

77. *Tabanus catenatus*. As I suspected in my Monograph, *T. catenatus* Walker is represented in the Brit. Mus. by specimens belonging to two different species; but it turns out upon examination of these specimens, that neither of them is my *T. catenatus*. One of them is the pale-colored variety of *T. turbidus* Wied., the other is *T. giganteus* (lineatus F.).

Thus *T. catenatus* Walker must be cancelled; *T. recedens* of the Brit. Mus. is my *catenatus*; but Walker's description (*cinereus* etc.) is not recognizable; my mention of it in Prodr. II, p. 434 was based upon a recollection, dating from my visit in the Museum in 1859. The species may remain as *catenatus* O. S.

78. *Tabanus hirticulatus*. I have seen the original specimen in Mr Bigot's collection and do not doubt the correctness of the synonymy.

Nevertheless, as Mr. Macquart's description is very unsatisfactory, I prefer to retain the name which I gave to this species.

79. *Tabanus cheliopterus* Rondani. I have seen the original type of the description, preserved in the Royal Museum in Turin. It is a very much rubbed female specimen, which seems to belong to *T. fronto*. Of the white abdominal triangles, not a vestige is left, which explains their being omitted in the description.

80. *Tabanus imitans* Walker. (Syn. of *T. fuscopunctatus* Macq.). In order to understand Walker's description, it must be borne in mind that the *T. abdominalis*, to whom he compares it, is not that species at all, but the same *T. fuscopunctatus* Macq.

81. *Tabanus gracilis* Wied. Wiedemann's description was drawn from a single specimen, the hind legs of which were wanting. There are two specimens in the Vienna Museum (Winthem collection), one of which answers this description. It is of the size and shape of my *T. longus*, but more reddish, the wings more tinged with brownish etc. The abdominal pattern is very much faded. It seems to be a species which I do not know, but which is closely allied to my *longus*.

82. *Tabanus lineola* Macq. Dipt. Exot. I, 1, 146, 49 must be some other species than *lineola* Fab.

83. *Tabanus sulcifrons*. The type, in Mr. Bigot's collection, is my *tectus*. As the description is sufficiently recognizable, I admit the priority. Macquart has *fulcifrons*, which, of course, is a misprint.

84. *Tabanus turbidus*. The type, now in Winthem's collection has very pale-colored wings.

85. *Tabanus unicolor*. The type in Mr. Bigot's collection is an unrecognizable specimen, perhaps *T. tener*; however there is an earlier *T. unicolor* Wied. from Brazil. Mr. Rondani (Archivio etc. Canestr. III, fasc. I, 1863) proposed to call the species *T. lateritius*, instead of *unicolor*; but the species, as a hopelessly doubtful one, be better cancelled.

86. *Tabanus variegatus* Fab. The type in Fabricius collection, from which Wiedemann's description was drawn, being probably destroyed, this will remain a doubtful species. The specimen in Winthem's collection (*not type*) is *T. fuscopunctatus* Macq. It is very probable that my interpretation of Wiedemann's description is the correct one.

87. *Tabanus marginalis* Fab. Wiedemann says: „Die Art phrase habe ich nach einem sehr schön erhaltenen Exemplare des Wiener Museums verbessert etc.“ I looked for this specimen in the general collection, in Vienna, but could not find it. In the Winthem collection a specimen labelled *marginalis* Fab. *var.* and marked as type, is my *T. cerastes*. It cannot well be the specimen described by Wiedemann, because he would have noticed the peculiar structure of the antennae (at present, these are broken in the specimen). At any rate the *T. marginalis* of Fabricius is, and will remain a doubtful species, and be better dropped.

88. *Tabanus quinquevittatus*. In the Winthem collection (Vienna) there is a ♂ and a ♀ (both marked as types), from Savannah, and not

from Mexico. They look exceedingly like *costalis*. Of *T. costalis*, the types in Wiedemann's collection are very poor specimens, and for this reason, probably, his description is unrecognizable.

89. *Tabanus fulvescens* Walker. I have seen Walker's type in the Brit. Mus.; it is *T. bicolor* Wied. What I described as *T. fulvescens* is very probably only a variety of *T. bicolor*, with gray, instead of yellowish pleurae. A similar variety occurs in *T. fulvulus*.

90. *Tabanus Craverii*. May possibly be an *Atylotus*. The typical specimens, females, looked very much that way.

91. Mr. Loew (*in litt.*) proposes to divide in the *Leptidae* two sections:

- I. *Psammorycterina*, without facial swelling and with a strong spur on the front tibiae; genera: 1. *Pheneus*, as the typical genus, closely allied to: 2. *Psammorycter* (Syn. *Vermileo*); 3. *Triptotricha*.

- II. *Leptina*, with a facial swelling, but without spur on the front tibiae; all the other genera.

About *Leptidae* compare also *Frauenfeld*, Verh. Zool. Bot. Ges. 1867, p. 495.

92. *Leptis Servillei* Guérin. I suspect this is nothing but *Chr. ornata* Say. But the femora are said to be brown? The figure however does not show it.

93. *Atherix filia* Walker; is either *punctipennis* Say, or *plumbea* Say.

94. *Leptis cinerea* Bell according to the description, cannot well belong to *Leptis*; compare antennae, shape of anal cell etc. [Loew, *in litt.*]. The type in Mr. Bellardi's collection is, unfortunately, nearly destroyed: only the thorax and wings are left.

95. *Spania edeta*; the specimen in the Brit. Mus. seems to be a real *Spania*, that is a Leptid with a stout, styliiform arista.

96. *Glutoys*. I am uncertain about the position of this extraordinary genus, but prefer this place to any other.

97. H. Loew's Monograph: Ueber die Europäischen Raubfliegen (Diptera Asilica), in the Linn. Ent. Vol. II, III, IV: Suppl. in Vol. V, 1847—1851, laid the foundation to the systematic distribution of this family. This work was supplemented by him in numerous later publications, especially in the: Bemerkungen über die Familie der Asiliden, Berlin 1851, and Die Diptern-Fauna Südafrika's, Berlin 1860. About the exotic Asilidae, the following important papers by Dr. R. Schiner may be consulted:

1. Die Wiedemann'schen Asiliden (in the Verh. Zool. Bot. Ges. 1866, p. 649—722; Nachtrag, p. 845—848). The usefulness of this paper is somewhat impaired in consequence of the misapprehension under which it was written, about the distribution of Wiedemann types between the so-called Wiedemann's and the Winthem's collections; now both in the Vienna Museum. I have explained the whole matter in the preface to this volume. Some curious mistakes have arisen in consequence, as for instance, in the case of *Erax actus* (see my note 125). But Dr. Schiner's paper is nevertheless rendered invaluable by a survey of all the

genera of Asilidae (down to 1866) and the analytical tables for their determination, which it contains.

2. Neue oder wenig bekannte Asiliden des K. Zool. Hofcabinets in Wien (Verh. Zool. Bot. Ges. 1867, p. 355—412).

Mr. van der Wulp published a paper, about the Asilidae of the Eastern Archipelago. [Tijdschr. v. Ent. Vol. XV, 1872.]

98. *Gonypes nitidus*. Macquart quotes Tab. XII, f. 7; the comparison however of this figure with the descriptions of *G. nitidus* and *G. Audouinii* in the letterpress shows, that the figure refers to this latter species. The name *nitidus* must be dropped, having been used before; the name *G. gigas*, engraved on the plate instead of *G. Audouinii*, must likewise be erased. The passage in Loew, Linn. Entom. II, p. 395, proposing to adopt the name *gigas* for *nitidus*, was written before Macquart's mistake in the quotation of the figure had been discovered. Schiner did well in proposing a new name for the species. [Communicated by Loew *in litt.*] Mr. van der Wulp makes the same correction in Tijdschr. v. Entom. 1876, p. 172.

99. *Ceraturgus niger*, of which I saw the type in the Jardin des Plantes, looked like a *Taracticus* rather than a *Ceraturgus*. I have not examined it closely, but have had occasion to examine a similar, perhaps the same, species in the Berlin Museum, which is undoubtedly a *Taracticus*.

100. The Mus. Comp. Zool. possesses a number of specimens of a *Microstylus*, which is of the same size as *M. morosum*, but which Dr. Loew, to whom I communicated a specimen, considers a different species, and calls *M. pollens*. It is less intensely black than *morosum*, antennae and legs are often reddish-brown, the bristles on the sides of the thoracic dorsum are yellowish-white etc. As I had no opportunity to make a thorough comparative study of both species, I merely draw the attention of collectors to it.

M. pollens, like *M. morosum*, was taken at Dallas, Texas, by Mr. Boll.

101. *Stenopogon ochraceus* v. d. Wulp. The closed fourth posterior cell makes this species a *Scleropogon*. But if I understand Mr. v. d. Wulp's letterpress, the front tibiae are armed with a spur. How can in this case the species be a *Stenopogon*?

102. There is an *Archilestes* Selys, Odonata 1862.

103. *Dizonias bicinctus* Loew. Loew describes the male. Specimens often occur without any trace of the white abdominal crossbands; they may however have disappeared since the death of the specimen. The type of *Dasyopogon tristis* Walker, which I have seen in the Brit. Mus. is such a specimen.

The female of this species differs very considerably from the male and might easily be mistaken for a different species; I will therefore mention here that head, antennae, and thoracic dorsum are reddish-brown, and not black; the two abdominal crossbands yellow, and not white; legs brownish-red, more or less blackened on the femora; wings brown; costal vein brownish-yellow. Both sexes were found flying tog-

ether in the middle of May 1875 near Enterprise, Florida, by M. M. Hubbard and Schwartz.

Dr. Loew acknowledges that the description of *Dasypogon quadrimaculatus* Bellardi agrees with his *Dizonias bicinctus*. The only difference he finds, consists in the latter not having any white hairs on the front coxae, and having such hairs on the hypopygium. I have seen Mr. Bellardi's type; it looks exactly like *D. bicinctus*. I have also seen specimens from the Southern States (in Mr. v. Roeder's collection), which were certainly *D. bicinctus*, although they had some white hairs on the fore-coxae. I doubt therefore the importance of this character, and believe that the synonymy of those two names can be safely assume.

104. *Cyrtopogon*. To the description of *C. lyratus* n. sp., I add a more complete one of Walker's *C. Lutatus*, and also an analytical table for determining the five species hitherto known from New England.

1. { Scutellum flat, with very few, indistinct hairs *Lutatus* Walker
1. { Scutellum convex, with distinct, long, erect hairs (2)
2. { Third joint of the antennae red . . . *marginalis* Loew
2. { Third joint of the antennae black (3)
3. { Tibiae and tarsi altogether black . . . *lyratus* n. sp.
3. { Tibiae and tarsi more or less red or yellow (4)
4. { Tibiae red, the tip only black; the male with two large black spots on the wings *bimaculatus* Walk.
4. { Tibiae red at the base only; the male without large black spots on the wings *chrysopogon* Loew.

105. *Cyrtopogon Lutatus*.

Dasypogon Lutatus Walker, List, etc. II, p. 357.

Female. Legs black, bristles on the tibiae whitish; mystax white; abdominal segments, except the first, with interrupted crossbands of white pollen near the hind margin; wings hyaline. Length: 7.5 mm.

Front and face grayish-pollinose, mystax white; antennae black. Thoracic dorsum clothed with a brown pollen, which forms the usual stripes; the humeral callosities and the sides of the dorsum are covered with a more yellowish-gray pollen, which sometimes also extends more or less distinctly to the intervals between the dorsal stripes and the median line of the geminate stripe; a rather distinct, grayish-white spot on each side of the median geminate stripe, where the thoracic suture reaches it; scutellum rather flat, rugose, with but little hair; grayish-pollinose in the middle, black on the sides; pleurae grayish-pollinose; a shining black spot under the root of the wings; the fanlike fringe of hairs in front of the halteres seems to be mixed of whitish and black hairs. Halteres yellow. Abdomen of very nearly equal breadth (the seventh segment distinctly narrower), convex, black, moderately shining; with microscopic transverse rugosities; first segment with whitish-pollinose spots on the sides; segments 2-7 with crossbands of white pollen posteriorly; interrupted on segments 2-5, subinterrupted, nearly entire, on segments 6-7; they touch the hind margin of the segments on the sides, but diverge from it a little in the middle; the sides of

the abdomen, at the base, are clothed with white hairs; the surface of the abdomen is clothed with short, microscopic pile, which, in a certain light, appears golden-yellow. Legs black, tarsi more or less dark chestnut-brown; femora with the usual white hairs, tibiae with white bristles, the front pair with some black bristles on the underside. Wings hyaline; a grayish tinge on the distal half is hardly perceptible; venation normal.

Hab. Massachusetts; Cayuga lake, New York (Mr. Comstock); Nova Scotia (Walk.). Two females.

Cyrtopogon lyratus n. sp. ♀. Legs, mystax and antennae altogether black; thoracic dorsum with a very distinct pattern in whitish pollen. Length: 13—14 mm.

Female. Head black, densely grayish-pollinose on the face, slightly on the sides of the front; mystax altogether black; hairs on the occiput black above, white below; antennae black, third joint but little longer than the two preceding, taken together. The usual thoracic stripes are dark brown, the white or yellowish pollen in their intervals forms the following pattern: a median line, attenuated posteriorly; a figure in the shape of a tuning-fork, having the end of the handle in front of the scutellum, connected with the end of the median line; a broad stripe on each side between the humeral and the antescutellar callosities, attenuated and abbreviated before reaching the latter; these lateral stripes are twice connected by pollinose crossbands with the branches of the tuning-fork, the second time, along the thoracic suture. Scutellum black, with black pile; grayish pollinose anteriorly. Pleurae grayish-pollinose, with a stripe of more dense silvery-gray pollen on the lower part; the fanlike fringe of hairs in front of the halteres is black. Abdomen black, shining, with a bluish reflection on the first five segments; each of these has a large spot of white pollen on each side, against the posterior margin; the sides of the abdomen are clothed with white hairs, which become gradually shorter posteriorly and do not reach beyond the fifth segment. Legs black; bristles on the tibiae black; femora with long white hairs on the underside; the last pair also on the upper side, near the base. Halteres reddish-yellow. Wings hyaline on their proximal half, including the discal cell; the distal half has a slight grayish tinge; crossveins clouded with brown.

Hab. Catskill Mountain-House, N Y., July; White Mountains, N. H. Three females. The altogether black legs; the strong contrast between the brown thoracic stripes and the whitish-pollinose intervals between them; the altogether black beard etc. will help to distinguish this species.

106. *Deromyia* Philippi. Verh. Zool. Bot. Ges. 1865, p. 705 is erroneously referred by Gerstaecker, Entom. Ber. 1867, p. 99, to *Plesiomma* Macq. It has a spur on the front tibiae and must be very closely allied to *Diognites*, if not identical with it. Schiner (Die Wiedem. Asil., p. 653) refers it to *Cyrtophrys* Loew.

107. *Dasyfogon rufescens*; the synonymy rests on the assumption

(a very probable one), that Macquart overlooked the spurs on the front tibiae.

108. *Diognites umbrinus*. I am not quite sure whether the specimen of *Dasyph. basalis* Walker, in the Brit. Mus. belongs here or to *Diognites discolor*.

109. *Diognites annulatus* Bigot. This species does not belong to *Senobasis* Macq. from which it differs in the structure of the antennae and of the hypopygium. It may be placed provisionally in the genus *Diognites*, however, as a separate section (Loew *in litt.*).

110. *D. brunneus*. Macquart's synonymy is not to be relied on, as he evidently mixed up several species of *Diognites*.

111. *D. Duillius*. The description seems to betray a *Diognites*, nevertheless certain statements render this interpretation doubtful; hence the isolated position given to this species. (Loew *in litt.*)

112. *Laphria lata*. I have seen the type in Lille and have taken a note, which enabled me to determine a specimen from Louisiana in the type-collection (now in the M. C. Z.).

113. *Laphria Alcanor* Walker, is the variety of *L. thoracica* which has the intermediate abdominal segments beset with yellow pile.

114. *Laphria affinis* Macq., the type of which I saw in Mr. Bigot's collection, looks very much like *L. thoracica* in the variety with altogether black abdominal pile. The description speaks of *white* hairs about the head, which do not exist in *L. thoracica*, but do not shake my belief in the synonymy.

115. In the Banksian collection, preserved in the Brit. Mus. and containing the types of Fabricius, there is an *Asilus grossus*, with the reference: *Spec. Ins. Nr. 1*. The specimen bears a label *America*, and another label with the word *type*. This specimen is *Laphria tergissa* Say. In the *Species Insectorum* the locality is given simply as „America“; in the *Syst. Antl.* we find „in America meridionali“, evidently a later and probably erroneous addition. In both works however, the „Museum Dom. Banks“ is quoted, as containing the type of the description.

116. *Laphria analis* Macq. Synonymy hardly doubtful, although Macquart says: „les cinq premiers segments à poils jaunes“.

117. *Laphria flavibarbis* Harris. The original type still exists in Dr. Harris's collection, in Boston. I do not think that it differs from *tergissa*. At any rate there is an earlier *L. flavibarbis*, by Macquart.

118. Schiner (l. c. p. 709) places *Laphria rubriventris* Macq., *L. formidolosa* Walk. and *xanthocnema* Wied. in the genus *Andrenosoma*. He is wrong about *rubriventris* which is a *Lamproia*.

119. The genera of the *Asilina* are tabulated by Loew in the *Linnaea Entom.* III, p. 402 and IV, p. 148; also later in the *Diptern-Fauna Südafrika's*, p. 143. Compare also Schiner, *Fauna Austriaca*, *Diptera*, I, p. 142.

120. *Mallophora scopifer* Wied. It seems probable that Macquart's *M. scopifer* is not the same as Wiedemann's. Schiner, *Verh. Zool. Bot. Ges.* 1866, p. 77, has a *M. scopifer* Bell. non Wied. Cuba; which evidently means Macq. non Wied., as Bellardi has no *M. scopifer* at all

and never described any insects from Cuba. In the Diptera of the Novara Expedition, however, Schiner quotes Wiedemann's and Macquart's descriptions as synonymical. I follow Loew, *in litt.* and call the Cuban species *M. Macquartii*. Jaennicke has the same remark about the distinctness of the two species (Nene Ex. Dipt. p. 54).

121. There is another *Trupanea* (*Promachus*) *apivora* Walk., Trans. Ent. Soc. N. S. V, p. 276, from Burmah, which has the same propensity for destroying bees. Mr. Walker's name having the priority, I have named Dr. Fitch's species *P. Fitchii* in the M. C. Z. collection.

122. *Promachus quadratus*. Observe the misprint in Wiedemann's diagnosis: ♂ for ♀; correctly given in his Dipt. exot.

123. *Promachus fuscipennis*. The identity of Macquart's and Bellardi's species seems doubtful.

124. *Promachus quadratus* Bell. If this species does not turn out to be a synonym of some other, the name will have to be changed, on account of *P. quadratus* Wied.

125. *Erax aestuans*. I have seen Wiedemann's type in the Winthem collection; it is the *Erax aestuans* of the Mus. Comp. Zool. Schiner's statements (Verh. Zool. Bot. Ges. 1866, p. 686) are based upon a misapprehension of the true type of Wiedemann, a misapprehension the source of which has been explained by me in the preface to this volume. But although the question of *Asilus aestuans* Wiedemann is thus settled, the identity of this species with *Asilus aestuans* of Linné and Fabricius may still be called in doubt, as the descriptions of both authors speak of three white segments on the abdomen of the male, while *A. aestuans* Wied. has only two. Harris's Ins. Inj. to Veget. 3^d edit., Tab. I, f. 4, shows only two stripes. Compare also the note 128.

126. *Erax ambiguus*, *interruptus*, *argyrogaster*, *maculatus*. Macquart's types of these species, which I have seen in the Museum in Lille and in Mr. Bigot's collection, look very much alike. However, I did not compare them with the descriptions; the latter, which I have read since, show that *argyrogaster* has a large male hypopygium, *ambiguus* a remarkably small one for an *Erax*. *E. maculatus*, judging from the figure, has likewise a large hypopygium. For the species which I have seen from Texas I preferred the name of *ambiguus*, as the most certain; the hypopygium of the male, in this species, is remarkably small for an *Erax*. I admit at the same time that the female of this species looks exactly like the figure of the female of *E. maculatus* in Macq. D. Exot. I, 2; Tab. IX, f. 6. Schiner (Verh. Zool. Bot. Ges. 1867, p. 393) compares *E. maculatus* to its next relative, *E. striola*, the specimens of both being from Brazil.

127. *Asilus apicalis*. Wiedemann's type, a female, was in his collection, but is no more in it. See Schiner, l. c. — Walker, List, etc. VII, p. 619, puts this species in the genus *Erax*, where indeed it may belong.

128. *Erax lascivus*. All that Schiner (Verh. Zool. Bot. Ges. 1866, p. 686, Nr. 63) says about this species, results from the misapprehension under which he was laboring. See my note 125.

129. *Eristicus* is preoccupied by Wesmael, in the Ichneumonidae, 1845.

130. *Proctacanthus fulviventris* Macquart. The length is said to be four lines, an evident misprint for *fourteen*, as appears from the comparison to *rufiventris* (Loew *in litt.*).

131. *Asilus agrion*. I have seen the original specimen in the Senckenberg Museum in Frankfort. It is nearly eaten up by *Anthrenus*, the abdomen being entirely gone, but it seems to be *Proctacanthus Milbertii*; compare however the description with the specimens of the latter.

132. *Asilus* is understood here in the wider sense, in order to include the species of former authors which I could not place anywhere else.

132. *Asilus apicalis* Bellardi. There is another *Asilus apicalis* Wied.; see *Erax*.

134. Both names, *Mochtherus* and *Itamus* are preoccupied by Schmidt-Goebel in the Carabida, in 1846. (See Marschall's Nomenclator.)

135. *Asilus gracilis* Wied. Very peculiar species, the type of which still exists in Vienna. Schiner (Verh. Zool. Bot. Ges. 1866, p. 686), is of opinion, that it may provisionally be placed in the genus *Mochtherus*.

135 a. *Ommatius*. Mr. Bigot has an article about this genus, with the list of all the described species, in the Annales Soc. Entom. 1875, p. 237—248.

136. *Ommatius marginellus*. Compare also Schiner, Verh. Zool. Bot. Ges. 1866, p. 682: „Very like *O. tibialis* but differs in the bristles of the mystax being black (and not snow-white as in *O. tibialis*) and those on the hind femora being of the same color (and not altogether or prevailing yellow, as in *O. tibialis*).“

137. *Midaidæ*. Compare the essay on this family by Gerstaecker in the Stett. Entom. Zeitschr. 1868, p. 65—103 (with a plate): Systematische Uebersicht der bis jetzt bekannt gewordenen *Mydiden*. Earlier monographs were given by Wiedemann and Westwood.

138. About *Mydas* and *Midas* see in Gerstaecker, l. c. With Wiedemann and others I prefer *Midas*.

139. *Midas audax*. O. Sacken, Bull. Buff. Soc. N. H. 1874, p. 186. ♂. — Black, second abdominal segment red on the dorsal, as well as on the ventral side; head, thorax and first abdominal segment with whitish hairs. Length: 23 mm. Wing: 18 mm.

Very like *M. claratus* in its coloring, but easily distinguished by its smaller size, comparatively broader head, more cylindrical shape of the abdomen, by the red color of the second segment, which does not encroach anteriorly, on both sides, upon the first segment (as it does in *M. claratus*), which exists on the ventral as well as on the dorsal side of the segment, and which is not interrupted on the dorsal side by a more or less distinct black spot; finally, by the whitish pubescence on the head, the thorax and the first abdominal segment. Head black, broader than the thorax, clothed with soft, white hairs, mixed with black ones; the white hair is especially apparent on the vertex and the sides of the front, also as a small tuft on each side under the antennae, near the orbit of the eye, and as a border round the clypeus.

Thorax black, opaque; the dorsum clothed with white hairs, forming four longitudinal bands, especially visible from a side view. First segment of the abdomen black, opaque, clothed with long, soft, erect white hair, which reaches down to the hind coxae; second segment shining, yellowish red, the remainder of the abdomen black, moderately shining. Venter black, except the second segment, which is yellowish red. Halteres and feet black, pulvilli brownish (of a darker color than in *M. claratus*). Wings strongly tinged with brown, and with a slight purplish reflection. Venation like that of *M. claratus*.

Belongs to Gerstaecker's first tribe, that is, it has spurs at the tip of the tibiae and a small cross-vein on the posterior border of the wing.

A single male discovered in the environs of Mammoth Cave in Kentucky, by Mr. F. G. Sanborn, in June, 1874.

Midas carbonifer O. Sacken, l. c. ♂. — Altogether black, thorax opaque, abdomen shining, wings brown. *Length*: 22 mm. *Wing*: 18 mm.

Black, front and epistoma shining, beset with black hair; antennae black, the expanded portion of the third joint brownish, and beset with a fine grayish pollen. Thorax opaque above, showing two velvety black longitudinal lines. Abdomen black, shining, except the first joint, which is opaque. Feet black; unguis reddish, with black tips; hind tibiae beset with strong spines, except toward their base; terminal spur strong. Halteres black; wings dark brown, with a violet reflection; the brown somewhat fainter in the centre of several cells, and along the posterior margin. Small cross-vein on posterior margin present.

Habitat, Norton's Landing, Cayuga Lake, N. Y. A single female taken in July by Mr. J. H. Comstock. This species seems not unlike *M. crassipes* Westw. in coloring, but is much smaller, has much darker wings, an opaque (and not shining) thorax, etc. (I never saw Westwood's species.)

Midas chrysostomus O. Sacken, l. c. ♂. — Black, face with a tuft of golden hair, abdominal segments 2, 3, 4 with red margins posteriorly, legs black, wings tinged with brown. *Length*: 25–30 mm. *Wing*: 21 mm.

Black; the incrassated portion of third antennal joint dull reddish, except the tip, which is blackish. Face with a tuft of golden yellow hair. Thorax of a smoky black, opaque above. Abdomen black, shining, except the first segment, which is opaque; a narrow band on the posterior margins of the 2d, 3d and 4th segments rufous, edged with yellow along the margin: on the 4th segment this band is much narrower and somewhat indistinct in the middle. Feet black; hind tibiae with a strong spur; hind femora with two rows of short, but strong spines on the underside; unguis dull reddish, tipped with black. Halteres black. Wings strongly tinged with brown, although less so than in *M. claratus*. Small cross-vein on posterior margin present.

Habitat, Dallas, Northern Texas. A single male collected by Mr. Boll. This species seems to have many characters in common with *M. fulvifrons* Illig. but it differs in the coloring of the abdomen.

140. *Bibio illucens*. Fabricius, in the System. Ent., perhaps in consequence of a *lapsus culami*, writes *illucens* for *filata* and *vice*

versa. In the Spec. Insect., as if becoming aware of his error, he correctly quotes System. Ent. 756, 1 (which in *B. illucens*) as a synonym of his *B. filatus*. Wiedemann, in *Monogr. Midar.*, and Westwood, *Arcana*, quote correctly *B. illucens*, System. Ent. 756, 1; Gerstaecker erroneously *B. filatus*, System. Ent. 757, 2 (which is *Hermetia illucens*).

141. *Nemestrinidae*. Dr. Loew (Dipternf Südafri. p. 245) proposes to call this family *Hirmonauridae*; Dr. Schiner (Novara, p. 105) opposes the change.

142. *Hirmonaura clausa*. Since describing this species, I have seen several specimens of a *Hirmonaura* brought by Mr. Morrison from Colorado. It has the second posterior cell open.

143. *Bombylidae*. In my *Western Diptera*, p. 225, I have given a synopsis of all the genera of this family hitherto found in the United States; and also, in the larger genera, a review of all the species, which may facilitate determination.

144. *Anthrax californiae*. I could not find the original specimen in the Brit. Mus.

145. *Exoprosopa philadelphica*. This seems to be a small variety of *E. fascipennis*; I have met with such specimens several times.

146. *Exoprosopa rubiginosa*. Probably a denuded *E. fasciata*; anyhow a wretched description; the name be better dropped. (I have seen the type since writing this note and confirm my statement.)

147. *Exoprosopa eremita*. Is not this species only a variety of *E. publensis*?

148. *Exoprosopa ignifer*. Walker contradicts himself about this species; in the Dipt. Saund. p. 166 he places it among the species with two submarginal cells; later, he puts it in Wiedemann's Division I, the species of which have three such cells.

149. *Exoprosopa trimaculata* Walk. Same remark as in the preceding note.

150. *Anthrax*. A number of Macquart's species in this genus, especially of those with hyaline wings, will have to be cancelled, as the descriptions are absolutely unmeaning and evidently based on miserable, rubbed off specimens. Such are: *A. cornuta*, *albipectus*, *gracilis*.

Of *Anthrax hyponides* and *Bastardii* I have seen the types.

151. *Anthrax haleyon*. Macquart's specimen is from Carolina and may perhaps, belong to *A. Ceyx* Loew?

152. *Hemipenthes seminigra*. I suspect that this species is the same as *H. morioides* (Say). Compare O. Sacken, Western Dipt., p. 241.

153. *Argyramoeba georgica*. This synonymy is admissible on the supposition only that Macquart had a female before him, and not a male, as he states. The figure of the wing seems convincing. I do not quote *A. analis* (Say) Macquart, Dipt. Exot. II, 1, p. 67, 32, because I suspect that it is some other species.

154. *Argyramoeba fur* O. S. has the greatest resemblance to *A. binotata* Meigen, of Southern Europe (Fiume and Portugal).

155. *Stygia elongata* Say, *Lomatia elongata* Wied., is not a *Lomatia* as Wiedemann himself observes, but it is difficult to say,

what it is. It has the antennae of a Leptid, but, nevertheless, only four posterior cells. I saw the typical specimen in Vienna and it seemed to agree with Wiedemann's figure. It is singular that another specimen of this species has never turned up in the United States; it would have allowed a more thorough investigation than the fragile type in Vienna, which one is afraid to handle.

156. *Anisotamia eximia* Macq. I doubt very much whether this species is well placed in that genus of Macquart's own creation, but established originally for two African species. It has nothing to do with *Anthrax*, as the bifurcation of the second and third veins takes place long before the small crossvein. It belongs in the group of *Lomatina*, as characterized by me in the Western Dipt. p. 226, and may, at least temporarily, be placed in the genus *Oncodocera*.

157. *Bombylius*. About this and the related genera, see the elaborate paper by Loew, Neue Beiträge, III.

158. *Bombylius aequalis* Harris (nec Fabricius). I have omitted the species of Fabricius' in my list, because it is impossible to make anything of the short description, unless it means *B. fratellus*. Wiedemann's description refers to a different species, and Macquart's apparently again do a different one. The references are:

Fabricius, Mant. Ins. II, 365, 2; System. Antl. p. 128, 2.

Olivier, Encycl. méthod. I, 326, 2.

Wiedemann, Auss. Zw. I, 350, 52.

Macquart, Dipt. Exot. II, 1, 99, 34; Tab. VII, f. 3.

159. *Bombylius fulvibasis*. The original type was from Mr. Bigot's collection. I saw two specimens there; the one is perhaps the same as *B. philadelphicus*; the other is *B. atriceps* Loew.

160. *Comastes*. *Bombylius basilaris* Wied. from Brazil and *B. ferrugineus* F. from S. Thomas belong to the genus *Comastes*. In establishing this genus, I was aware of the existence of *Comaster* Agassiz, Radiata, the derivation and termination of which are different.

161. *Bombylius brevirostris*. I saw Macquart's type in the Jardin des Plantes in Paris. *B. Lherminieri*, which is also there, is, to all appearances, likewise *Sparnopolius fulvus*.

162. *Adelidea flava* Jaenicke, the type of which I have seen in Darmstadt, appeared to me like a small specimen of *Lordotus gibbus*. The description likewise, reads that way.

163. *Allecotus* Loew, 1872; *Allocotus* Mayr, Hemipt. 1864; *Allocota* Motschoulsky, Coleopt. 1854.

164. *Poecilognathus* Jaenicke, is simply *Phthiria*.

165. *Toxophora leucopyga*. I saw the type in Vienna; it has no longitudinal yellow stripe on the abdomen, thus resembling the figure of *fulva* Gray. Is the *Toxophora fulva*, described by me, which has such a stripe, a different species or a mere variety? I leave the question open.

166. *Epibates*. In establishing this genus, I overlooked the existence of *Eclimys* Loew, Stett. Ent. Z. 1844, which would have very nearly answered my purpose.

Eclimus, however, differs as follows:

- 1) the face and cheeks are much more projecting, the antennae are comparatively longer (compare the head of *Eclimus* as figured by Loew, Stett. Ent. Z. 1844; Tab. II, fig. 9, 10, with the *Epibates* by Burgess in Proc. Boston Soc. N. H. 1878; Tab. IX, f. 1a);
- 2) the wings have no perceptible denticulations along the costa;
- 3) each abdominal segment is strongly coarctate at the base, the preceding segment having a corresponding swelling along the incisure; this is especially perceptible in *Eclimus perspicillaris* and *gracilis*; less so in *E. hirtus*;
- 4) the thorax in the male is not muricate.

I had an opportunity of comparing *Epibates muricatus* with the three species of *Eclimus* in Mr. v. Roeder's collection (in Hoyer); probably the richest private collection of Diptera in Europe.

Theremomyia Bigot has the shining thorax and the projecting face of *Eclimus*, and, at the same time, the muricate thoracic surface of *Epibates* (the latter is not mentioned in the description); it has a longer proboscis than either. These genera may, for the present, remain undisturbed, until a larger number of forms, belonging here, are discovered.

167. *Epibates niger*. The well-preserved male specimen in the Brit. Mus. shows the minute spines on the thoracic dorsum distinctly. I mention this to correct my statement in the Western Dipt., p. 274.

168. The latinized form *Thereva*, adopted universally, seems preferable to *Thereua* recommended by Mr. Loew. It is easier to pronounce like *Evangel* for *Euangel*, *Erander* for *Euander* etc. About the European species, compare Loew, Dipterol. Beiträge, II, 1847.

169. *Thereva candidata*. In Mr. Loew's diagnosis, read *clausa* for *aperta*.

170. There is an earlier *Thereva nervosa* Loew, 1847 (Loew in litt.).

171. About the European *Scenopinus*, compare Dr. Loew's article in the Verh. Zool. Bot. Ver. 1857; corrections and additions by the same, in Beschr. Europ. Dipt. III, p. 150—152. An earlier article by him, about the same genus, in the Stett. Ent. Z. 1845, p. 312—315.

172. About the *Cyrtidae* there is a monograph by Erichson, in his *Entomographien* (1840): Die Henopier.

Compare also Loew's: *Pithogaster*, eine neue Gattung der *Acroceriden* (Wien. Ent. Mon. I, p. 33; 1857).

Westwood's: Descr. of some new exotic species of *Acroceridae* (in the Trans. Ent. Soc. V, p. 91—98; 1848). Another paper by the same in the same Transactions for 1876.

The name *Cyrtidae*, derived from the genus *Cyrtus* (κύρτος, hump-backed), I find was used by Newman, in his Grammar of Ent., 1841. *Cyrtidae* was adopted by Loew, in the Monogr. Vol. I, instead of *Acroceridae* (Leach), *Henopidae* (Erichs.), *Dufatae* (Meig.), *Vesiculosae* (Macq.). It certainly has more meaning than *Acroceridae*, derived from a character, the insertion of the antennae on the vertex, which is by no means universal in the family. *Henopidae* (*Henops*, one-eyed) was adopted by Erichson, in spite of the circumstance that the generic

name *Henops* had been given up; as this is contrary to the usual practice in entomology, this family-name cannot well be maintained.

173. *Opsebius*. A more detailed definition of the genus is given by Tr. Loew, in *Beschr. Europ. Dipt. II*, p. 64. For the american species, I have prepared the following analytical table:

A. First posterior cell divided in two by a crossvein;

B. Anal cell closed; bases of the third and fourth posterior cells on the same line, or nearly so;

a. wings brownish *gagatinus* (Penn^a.);

aa. wings tinged with brownish, base and apex subhyaline *diligens* (Vanco^v.).

BB. Anal cell open; third posterior cell shorter than the fourth

b. sixth vein prolonged to the margin of the wing *sulphuripes* (New York);

bb. sixth vein interrupted long before the margin of the wing *paucus* (California).

AA. First posterior cell not divided by a crossvein *inflatus* (Europe).

O. formosus Lw. (Provence), *O. pcpo* Lw. (Spain), have the first posterior cell divided by a crossvein; both, as well as *inflatus*, differ from the american species in having the body black and yellow and not uniformly black. (See Loew, l. c.).

O. perspicillaris Costa unknown to Loew.

174. *Hybos*. In the Brit. Mus. *II. duplex*, *triplex*, *purpureus*, *subjectus* Walk. look very much like the same species. The two first, as appears from the description, are certainly the same species. Observe the careless wording of their diagnoses, where *pedibus* is used in two different senses; once for *legs*, and afterwards for *tarsi*!

Hybos reversus is a different species and has the base of the wings hyaline.

175. *Syneches* and *Syndyas*. The passage concerning these genera in Loew, l. c., runs as follows: „The characteristic marks, which distinguish *Syneches* from *Hybos*, consist in the shape of the head, which is flattened in the region of the front; in the palpi being somewhat broader at the tip; in the shorter first longitudinal vein; in the second vein taking its origin nearer the root of the wing, and ending more steeply in its margin, than in the true species of *Hybos*; in the somewhat shorter anal cell and in the usually spotted wings.“

„I take *Syneches* in this sense, and form alongside of it a new genus, based on some species of *Hybos* from the Cape, in which the fourth vein is almost indistinct before the discal cell and the origin of the second vein is still more distant from the base of the wing, than in those european species, which remain in the genus *Hybos*, so that the origin of the third vein is very near that of the second. The name *Syndyas*, which I give to this genus, is intended to allude to the coalescence of the two cells, produced by the indistinctness of the first section of the fourth vein.“

176. *Empina*. About the limits between this section and the *Hybotina*, see in Loew, *Fauna Sudafrica's*, p. 258. Compare also his

papers on European Empidæ, in the Berl. Entom. Zeitschr. Vol. XI, XII, XIII.

177. *Pachymeria*. See about it Loew's paper in the Wien. Ent. Mon. VIII, Novemb., where the two american species are also discussed.

178. Compare Loew, on *Microphorus* in the Schles. Z. f. Ent. 1863. On the relation between his genus and *Itaphila*, see Loew, Besch. Europ. Dipt. II, p. 250.

179. About the european species of *Drapetis* and *Stilpon* see Loew, Neue Beitr. VI, p. 33 The passage about *Stilpon* nov. gen. runs thus:

„Is separated from *Drapetis* on account of its front, which is of „equal breadth and not triangular; and of its arista, which is dorsal „and not apical.“

180. Compare: Ueber die schlesischen Arten der Gatt. *Tachypeza* und *Microphorus* by H. Loew, in Schles. Z. f. Ent. 1863.

In this paper Dr. Loew protests against the substitution of *Platypalpus* Macquart for *Tachydromia* Div. B, Meigen.

The facts are these: Meigen, in his principal work, divides the genus *Tachydromia* in two sections, which he calls A and B; Macquart (Diptères du Nord etc. 1827), proposes to call the larger section B, *Platypalpus*.

Before being aware of this, Meigen, in his Vol. VI (1830), proposed to call the section A *Tachypeza*, leaving the name *Tachydromia*, to the larger section B. In his Vol. VII, p. 94 (1838), he maintains this arrangement against Macquart's, and points out that the name *Tachydromia* should, as a matter of right, remain to the larger section.

The question may be argued both ways. Zetterstedt and Loew (in the Schles. Zeitschr. 1863) take Meigen's view. Dr. Schiner takes the opposite ground, and adopts *Platypalpus* (Syn. *Tachydromia*, Div. B, Meigen) and *Tachydromia* (Syn. Div. A, Meigen and *Tachypeza*, Meigen). I follow Meigen's view, as a matter of expediency, waiving the doubtful question of right. Meigen's work being the foundation of Dipterology, it is better, I think, to preserve its nomenclature, as far as possible. *Platypalpus* moreover labours under the disadvantage of being a hybrid compound of a latin and a greek word.

Sicus Latreille, cannot be maintained against the much earlier *Sicus*, Scopoli, which is a *Myopa* (compare note 47a).

181. On *Ardoptera*, see Loew, Wien. Entom. Monatschr. II, p. 7.

182. *Synamphotera*. In the Besch. Europ. Dipt. II, 255, Mr. Loew characterizes this genus as follows:

Proboscis short, horny; palpi small, incumbent.

Antennae short, with an exceedingly short terminal style.

Legs slender, the anterior ones of the ordinary structure.

The third longitudinal vein of the wings has its anterior branch often connected by a crossvein with the second vein; discal cell elongated, emitting three veins towards the alar margin; the two posterior basal cells elongated; the posterior but very little shorter than the preceding; sixth longitudinal vein strong, reaching the alar margin.

183. On the european species of *Hemerodromia*, see Loew, Wien. Ent. Mon. 1864, p. 237.

184. An observation of the lamented B. D. Walsh may be worth recording here: „It may perhaps be worth while to add, that on the grape-vine where these *Erythronæuræ* were swarming. I noticed a small and rather rare dipterous fly, the *Hemerodromia superstitionosa* of Say, very busily engaged. I caught him and put him in my collecting bottle, along with a number of leaf hoppers, and shortly afterwards saw him approach one silyly, stick his beak into it, and suck it to death, without using previously his long raptorial front legs.“ (B. D. Walsh, Fire Blight, in the Prairie Farmer, Chicago Illin. 1862)

185. On the european species of *Clinocera*, see Loew, Wien. Ent. Mon. 1858, p. 238.

186. Compare H. Loew: On the N. A. Dolichopodidae, in the Monographs of N. A. Diptera, Vol. II (1864), a monographic work on the north american genera and species of the family.

The same author's earlier publication: *Die nordamerikanischen Dolichopodiden* (in the Neue Beiträge, VIII, 1861) is superseded by the later one in English.

The classification of the family is chiefly due to Mr. Haliday (principally in Walker's Insecta Britannica, Diptera) and to Dr. Loew, in the Neue Beiträge, V, 1857 (Die Familie der Dolichopoden).

In a recent paper, Dipterologische Untersuchungen (Vienna 1878), Mr. Joseph Mik, describes twelve new genera, all european, and several new species of Dolichopodidae.

187. *Orthochile derempta* Walker, List, etc. III, p. 667, also in Monogr. II, p. 318, North America, is discussed by Mr. Loew, in Monogr. II, p. 115. It is certainly not an *Orthochile*, but from Mr. Walker's imperfect statements it is impossible to tell, where it belongs. The typical specimen, which I saw in London, looked very much like a *Chrysotus*.

188. About the definition of the genera *Hypophyllus*, *Hercostomus* and *Gymnopternus*, compare Loew, Besch. Europ. Dipt. I, p. 278.

189. *Porphyrops signifer*, n. sp. ♂. Tip of the arista expanded into a small lamel; body metallic green; feet yellow, except the hind tibiae and tarsi, which are black. Length, about 5 mm.

Bright metallic green; abdomen more golden green; the narrow face silvery; front green, with a white bloom; posterior orbits, below, with long white hair. Third antennal joint long and tapering, arista of nearly the same length as the joint, expanded at the tip into a small lamel. Feet yellowish, except the base of the coxae, which is blackish-gray; the end of the front tarsi brownish; upper part of the hind femora infuscated; hind tibiae and tarsi black. The front coxae, as well as the front and middle femora, are beset with long and delicate white hairs; there are remarkable small tufts of short hairs near the tip of each of the middle coxae. Halteres pale yellow; tegulae with yellowish cilia. Wings distinctly infuscated, more hyaline near the root.

Hab. Tarrytown, N. Y. July 1871; Manlius, in Western New York (J. H. Comstock).

This species resembles very much the european *Porphyrops antennatus* described and figured in the Ann. Soc. Entom. de France, 1835, p. 659; Tab. XX, c, as *Anglearia antennata*.

190. Mr. Kowarz has given important papers on the european species of *Chrysotus* in the Verh. Zool. Bot. Ges. 1874, and on *Medeterus* l. c. 1877.

191. *Chrysotus pallipes* and *obliquus*. According to Schiner, Novara, p. 221, these species have also been received from South America.

192. *Sympyenus*. There is a genus *Sympyena* Charp. 1840 (Neuropt.).

193. *Psilopus pallens*. This species, which is not uncommon along the Atlantic seaboard, and generally occurs about buildings, is the same as *P. albonotatus* Loew, from Rhodus. In Mr. Bergenstamm's collection in Vienna I saw a specimen from Barcelona, in Spain. Very probably, the species has been imported on ships to America.

194. *Microdon*. About the european species of this genus, see Loew, Verh. Zool. Bot. Ges. 1856.

195. *Ceratophya fuscipennis* Macq. The genus *Ceratophya* (Wiedemann, Anal. Ent. 1824; Auss. Zw. II, p. 79; Tab. IX, f. 5) is separated from *Microdon* on account of the absence of spines or even *tubercles* on the scutellum. This is not a sufficient reason for maintaining this genus, which in other respects, does not differ from a typical *Microdon*. The latter genus, as it is understood now, contains many species with much more important structural differences, and the existence of the genus *Ceratophya*, until those other species are not likewise separated, is only misleading.

I believe I recognize *C. fuscipennis* Macq. in a specimen from Texas, in Dr. Loew's typical collection. It is recognizable by the length of its third antennal joint; in general appearance and coloring it looks very much like *Microdon globosus*. Macquart had it from „Philadelphia“, but I do not quite trust his statements about localities and suspect that he sometimes labelled *Philadelphia* or *Baltimore* specimens which he had received from these cities, but which had a more southerly origin. (For instance *Lampria rubriventris* which is likewise frequently received from Texas, but which is labelled „Philadelphia“ by Macquart.)

196. *Chymophila splendens* Macq., Hist. Nat. Dipt. I, p. 486; Tab. XI, f. 3 (1834; Dipt. Exot. II, 2, p. 10; Tab. I, f. 2. Philadelphia. Mr. Bigot, in whose possession the typical specimen of Macquart's description now is, makes the following statement about it (Annales Soc. Entom. de France, 1858, p. 590): „The head of this specimen is glued on, and resembles that of *Conops*, while the body is that of an exotic *Microdon*.“ We may with safety, therefore, strike out this genus and species from among the number of existing forms. (Osten Sacken, Bull. Buff. Soc. N. H., Nov. 1875.)

Since writing the above, I have seen the specimen and can only confirm the statement. The body seems to belong to *Microdon aurifixa* Wied.

197. *Chrysotoxum*. About the european species, see Loew, Verh. Zool. Bot. Ver., 1856. Besides the enumerated species of *Chrysotoxum*, the following european species are quoted as occurring in North America: *bicinctum* Meigen, by Mr. Loew in Neue Dipterol. Beitr. IV, p. 18, together with *Helophilus pendulus*, *versicolor* and *floratus*, also european species. The statement about *Chr. bicinctum* is repeated by Loew, Verh. Zool. Bot. Ver. 1856, p. 614. None of these species has ever been found in N. A. since, and the statement seems to be based on an error of locality. The specimen of *Chr. bicinctum* on which the statement was based, is among the collection of Dr. Loew's North American types *C. fasciolatum* Deg., according to Walker, List, etc. III, p. 541, was found in Huds. B. Terr. I would not trust this statement without comparing the specimens.

198. *Paragus aeneus*. „The name *aeneus* was given by Walker in 1849 when there existed an *aeneus* Meigen (1822), now considered a synonym of *tibialis* Fallén“. (Verall in litt.).

199. *Chrysogaster*. About the european species, compare Loew, Stett. Ent. Z. 1843, p. 204. sqq; also Wiener Entom. Monatsschr. I, p. 4. In the former article the author also gives his opinion on the nomenclature of the genera of *Syrphidae*, and on the confusion prevailing in it owing to the arbitrary changes, introduced by Fabricius, Fallén and Zetterstedt (*Eristalis* Latr. = *Syrphus* Zett.; *Syrphus* Meig. = *Scaeva* Zett.; *Eristalis* Zett. = *Chilosia* Meig.).

200. *Chilosia*. On the european species, compare Loew, Verh. Zool. Bot. Ver. 1857.

201. *Syrphus Naso* and *Pacilus* are *Platycheiri*; whether they differ from *P. peltatus* and *quadratus*, I am unable to tell, as I had no specimens for comparison when I saw the types in the Brit. Mus.

202. *Leuczozona*. There is a genus *Leucozonia* Mollusca, 1847, which however does not interfere with the other.

203. *Catabomba*. „The eyes of the male have an area of large facets in the upper and middle portion (a structure which I have not observed in any *Syrphus*, sensu stricto); the hypopygium of the male is much smaller than in *Syrphus*, entirely concealed under the fifth segment; the front is remarkably convex in both sexes“ (Osten Sacken, Western Diptera). The name is derived from *καταβομβέω*, „I am humming round.“ The european *Syrphus seleniticus* also belongs to *Catabomba*; *Syrphus melanostoma* Macq. Dipt. Exot. II, 2, p. 87, from Chile, likewise.

204. *Syrphus*. Compare my paper: On the N. A. species of the genus *Syrphus*, in the Proc Bost Soc. Nat. Hist., 1875.

205 *Syrphus* *Aleidae* Walker, List, etc. III, p. 579 (Huds. B. Terr.) is represented in the Brit. Mus. by three specimens, one of which belongs to the group of *S. lapponicus*; the two others have faint yellow spots on the second segment only, the remaining abdominal segments being dark metallic green, with an opaque black longitudinal line in the middle. It is either a species which I do not know, or a dark variety of some well-known one. The description refers to these latter speci-

mens, only the „four interrupted gray bands“, mentioned in it, were not seen by me.

206. *Syrphus geniculatus*. The type in the Jardin des Plantes is an unrecognizable fragment

207. *Syrphus lapponicus*. Whether this is a variable species or a group of closely allied species, I do not pretend to decide; see about it in my paper on *Syrphus*, but strike out whatever is said there about the synonymy with *S. affinis* Say. The latter, as I recognized since, is *Catabomba pygæstri*.

208. *Syrphus arcuicinctus* Walker, List, etc. III, 580 (Huds. B. Terr.) is represented in the Brit. Mus. by two specimens, one of which is my *S. amalopsis*; the other belongs to the group of *S. lapponicus*. The description is drawn from the latter specimen, the abdominal spots of *S. amalopsis* being much more than „slightly curved“.

209. *Syrphus philadelphicus* Macq. and *Scæva concava* Say are synonyms of either *S. ribesii* or *S. torvus*. The type of the former in the Jardin des Plantes is a very much soiled specimen. — The *S. concavus* in Wiedemann's collection in Vienna is *S. ribesii*. — I have no doubt now of the identity of *S. ribesii* with my *S. rectus*. Mr. Novicki (in his Beitr. z. Dipterenfauna Neuseelands, 1875), published another *Syrphus rectus*, in the very year of the publication of mine.

210. About *S. guttatus* Walker, Mr. Verrill writes me that it resembles *umbellatarum*; hence I place it as a doubtful synonym of the American *umbellatarum*.

211. *Syrphus adolecens* Walker, List, etc. III, p. 584 (Huds. B. Terr., Nova Scotia) is represented in the Brit. Mus. by three specimens; one belongs to the group of *S. lapponicus*; the other (from N. Scoti.) is *S. americanus*; the third is my *S. contumax*. The description was probably drawn from the latter, although it is very unmeaning

212. *Didea fuscipes*. Differs from the European *D. fasciata* in the color of the legs only (Lw. Cent. IV, 82). *D. laxa* with its greenish color, is the representative of the European *D. abucti*.

Didea laxa O. Sacken ♂ ♀. Bull. Buff. Soc. I. c.).

The greenish or yellow cross-bands are attenuated on the sides and come in contact with the lateral margins of the abdomen. Length: 11–13 mm.

Female. — Face yellow, with a broad, brown stripe, front and vertex black; the former with gray dust on both sides. Antennae black. Thorax blackish-green, shining. Scutellum dull brownish-yellow, with a slight greenish or bluish metallic lustre. Pleurae with a whitish spot, beginning at the humerus and connecting almost at right angles with a similar spot in the middle of the pleura. Abdomen black, with two greenish-yellow or yellow spots and two cross-bands; the spots (on the second segment) are large, oval and in contact with the lateral margin; the cross-bands (on segments 3 and 4) have a triangular notch or excision on their hind margin (in some specimens they are altogether interrupted); on each side of the notch they are convex, so as to come in contact with the abdominal margin with less than their greatest

breadth: hind margin of the fourth segment margined with yellow. Venter black, segments 2, 3, 4, each, with a broad yellow cross-band at the base, coarctate in the middle. Legs yellow; proximal half of the four anterior femora black; hind femora black, except at tip; hind tibiae with a brown ring in the middle, sometimes expanding over the whole tibia; tarsi more or less brown. Wings with a distinct grayish tinge, stigma brownish; the third vein forms a distinct sinus, encroaching upon the first posterior cell.

Male. — The white spots on the pleurae are less perceptible; the cross-bands are sometimes interrupted in the middle, especially in the smaller specimens. In one of the specimens the spots on the second segment, as well as the interrupted cross-bands are separated from the lateral margin by a distinct black interval.

Habitat, Lake Superior collect. A. Agassiz; Norway, Me. (S. I. Smith); Mt. Washington, Alpine region (G. Dimmock). The largest lot I received from Mr. H. K. Morrison, who collected it in the White Mountains. Altogether I had fourteen males and an equal number of females.

The cross-bands and spots on the abdomen usually are greenish, like those of the European *D. aluti*; sometimes, however, they are yellow.

D. laxa differs from *D. fuscipes* Loew in the shape of the abdominal cross-bands, which in the latter, become broader on each side, but do not reach the margin; also in the color of the femora, etc.

213. *Sphaerophoria*. I restore this name, however incorrect its termination may be, as *Melittreptus* was used long before 1840 for a genus of birds.

214. *Allograpta*. „*Scaera obliqua* Say, cannot well be placed in any of the existing genera of this group. It does not possess the characteristic marks of *Mesograpta* (peculiar shape of the ocellar triangle in the male, and peculiar coloring of the thorax; it has not the large development of the hypopygium of the male of *Sphaerophoria*; it might be placed among the species of *Syrphus* with a linear abdomen. But, in the first place, these species will, sooner or later, have to be separated from the bulk of the genus; and, in the next place, *Scaera obliqua* possesses in the structure of the eyes of the male, and in the peculiar markings of its abdomen, sufficient characters of its own. The eyes of the male are divided in two parts by a well defined line, above which the facets are larger than below; the line lies a little lower than the antennae and thus divides the eye in two unequal parts, the upper one of which is a little larger: its coloring, in life, is more red, the lower half is more purplish. This character, very striking in life, is also visible in dried specimens. I have not observed it in the species of *Syrphus*, or of *Sphaerophoria*, or of *Mesograpta*, which I examined alive. The name *Allograpta* is given in allusion to the peculiar coloration of the typical species. *Scaera emarginata* Say, which I do not possess, is provisionally placed in the same genus. I suspect that more than one *Syrphus* from Mexico and the West Indies belongs to the same group;

as for instance *S. delineatus* Macq., but, of course, it is impossible to judge from descriptions alone." (Reproduced from the Bull. Buff. Soc. N. H. 1876.) Since writing the above, I have discovered *Allograpta fracta*, n. sp. in California, which also shows the generic characters, as defined above. *Syrphus exoticus* Wied., Auss. Zw. II, 136, is likewise an *Allograpta*.

215. *Xanthogramma felix* O. Sacken ♀. (Bull. Buff. Soc. I. c.)

Female. — Face and cheeks yellow (in all my specimens, except one, the face has the brownish-red tinge, which the faces of *Syrphi* sometimes assume); vertex dark metallic green, emitting a stripe of the same color, which reaches the base of the antennae, where it expands little; between this stripe and the eyes, the front is yellow. Antennae black, sometimes faintly reddish on the under side, near the suture of the second and third joints; third joint rather large, oval, blunt. Thoracic dorsum of a rather bright metallic green; on each side a yellow stripe runs from the humerus to the callosity near the scutellum; the latter yellow, its extreme base and corners blackish or brown. Pleurae with a large, ill-defined yellow spot below the wings. First abdominal segment with a yellow spot each side (just under the halteres); the first cross-band (on the second segment) is either interrupted by a very narrow black line in the middle, or entire; the second band is coarctate in the middle, its hind margin being a shallow obtuse angle; the same may be said of the third band, except that the obtuse angle is deeper and often has a notch in the middle, which sometimes cuts the band in two; there is a narrow fourth band at the base of the fifth segment, encroaching upon the hind margin of the preceding segment; the fifth segment has a narrow yellow posterior margin. Legs yellow, hind legs black or brown, except the base of the femora and a space on both sides of the knees. Wings with a distinct brownish tinge on their distal half, anteriorly; stigma brownish; sometimes the whole wing has a brownish-yellow tinge. Length: $9\frac{1}{2}$ — $10\frac{1}{2}$ mm.

Habitat, Westpoint, N. Y., in Sept. 8—10, three females; Illinois; Pennsylvania. (The specimen from the latter locality is smaller, wings more hyaline, legs and antennae of a paler color.) The first and third band are as often interrupted as not; the second often shows a vestige of an interruption in the shape of an indistinct blackish line in the middle.

216. *Ocyrtamys Amissas* Walker. In my List of N. A. Syrphidae, I took this for a synonym of *O. fuscipennis*. Since then I saw that Dr. Loew, in his N. A. collection, considered it a different species, and he may be right.

O. Radlaca Walker, which I have seen in the Brit. Mus. is perhaps a synonym of *O. Amissas* or of *conformis* Loew; the posterior part of the wing is hyaline, traversed by a brown cross-band.

217. *Brachyopa vacua* O. Sacken ♀. (Bull. Buff. Soc. I. c.)

Brownish gray, thorax with three brown stripes; abdomen brown, its basal third whitish yellow, with a brown line in the middle; arista bare. Length: 8—9 mm.

Face, front and vertex densely clothed with a grayish pollen; lower part of the face very much projecting; a brownish stripe runs across the cheek, from the eye to the mouth; antennae brownish, grayish pollinose; arista bare, brown, reddish at base. Thoracic dorsum yellowish-gray, with three brown stripes; the intermediate one geminate and abbreviated posteriorly. Scutellum brownish-yellow. Abdomen brown, shining; first and second segments whitish yellow (as if translucent), the second brown posteriorly and with a longitudinal brown line in the middle. Legs grayish brown; hind femora slightly incrassate, on the under side with a brush of short spine-like bristles. Wings distinctly tinged with brownish, especially on the distal half, anteriorly; first posterior cell distinctly petiolate at the distal end, the petiole being equal in length to the small cross-vein.

Habitat, Quebec, Canada (Mr. F. X. Bélanger); a single male specimen. The interval between the distal ends of the first posterior and discal cells is a shallow sinus, and not a right angle, as in the following species.

Brachyopa notata O. Sacken, ♂ ♀. (Bull. Buff. Soc. 1. c.)

Yellowish-ferruginous; abdomen with brown incisures and with a brown dorsal line; arista pubescent. Length: 5–6 mm.

Face and front pale yellowish, with a yellowish silvery pollen; cheeks with a faint brownish stripe; antennae yellowish-ferruginous; arista yellowish-brown, pubescent; vertex yellowish-ferruginous. Thorax reddish above, clothed with a yellowish pollen, which leaves bare three reddish stripes; the intermediate one geminate. Scutellum reddish-yellow, nearly as long as it is broad; abdomen brownish-yellow, with the hind margins of the segments distinctly, but narrowly bordered with brown; lateral margins likewise brownish; in the middle of the back, a narrow, longitudinal brown stripe, sometimes interrupted at the incisures, in some specimens evanescent on the fourth segment. Halteres whitish. Legs brownish-yellow, hind tarsi brown. Wings somewhat tinged with brownish-yellow, more distinctly brownish on the apex and along the cross-veins at the distal ends of the first posterior and discal cells; first posterior cell short-petiolate at the distal end.

Habitat, White Mountains, N. H., beginning of July. Two males and a female. In this species the interval between the distal ends of the first posterior and the discal cell is nearly a right angle.

I have a fourth specimen, a female, from Quebec (Mr. Bélanger), which is smaller, and very pale in coloring, without any brown stripe on the abdomen, the incisures but slightly infuscated, the wings almost hyaline, etc. I take it for a somewhat immature *B. notata*.

218. *Volucella Maximiliani*. When Brauer, in his Entom. Bericht für 1868, says that this species is a synonym of *Volucella americana* Wied., he probably means *V. mexicana* Macq., as a *V. americana* Wied. does not exist.

219. *Volucella fasciata* and *pusilla*. Until further evidence I do not unite these two species, Macquart's suggestion notwithstanding. The M. C. Z. has *pusilla* from Haulover, Florida, March 11 (M.M.

Hubbard and Schwarz); *fasciata* from Dallas, Texas, (Boll) and from Manitou, Colo., where I took it Aug. 18.

220. *Tennocera*. Some of the species placed in the genus *Volucella*, may belong to *Tennocera*, as I do not quite understand the definition of this latter genus. Wiedemann (Auss. Zw. Preface to Volume II, p. X) was likewise doubtful about it.

221. *Eristalis albiceps* Macq. is a distinct species and looks like *E. seniculus* Loew, from Cuba. I have seen the type in Paris.

222. *Eristalis compactus* Walker has the whole leg red, while *E. atriceps* as described by Loew, has black femora. Nevertheless M. Walker's type, which I saw in London, struck me as being the same as *E. atriceps*. The question is therefore, whether the color of the legs is not variable, a question which I cannot solve here. (Heidelberg, Oct. 1877.)

223. *Eristalis Androclus* Walker, as I saw it in the Brit. Mus. is a *Helophilus*. Nevertheless I retain the name as *E. Androclus* O. S. (non Walker, as I have referred to it in the Western Diptera and communicated it to many correspondents.

224. *Eristalis semimetallicus*. I have seen the type in Mr. Bigot's collection; it looked to me like *E. Bastardi*. It is possible however, that it is a closely allied, but different, species.

225. *Eristalis dimidiatus*. Macquart did not recognize *E. dimidiatus* Wied., and thus came to describe it, first as *niger* in the *Suites à Buffon*; then the male as *L'herminieri* and alongside of it, both sexes as *chalybeus* (Dipt. Exot. Vol. II); and then again the female as *incisuralis* (in the Suppl. 4). That the eyes of the latter are described as *glabrous*, is erroneous, as all the known North American *Eristalis* have pubescent eyes, with the single exception of *E. aeneus*. I saw the types of *E. L'herminieri* and *chalybeus* in the Jardin des Plantes, and although I had no opportunity of comparing them with specimens or descriptions of *E. dimidiatus*, they did not shake the opinion I had previously formed of their synonymy. *E. incisuralis* I did not see.

226. *Eristalis flavipes*, Syn. *Milesia barda* Say ♀ (non ♂). The original type of Say's is still preserved in the Harris' collection in Boston. This synonymy explains the *brown spot* on the wings of the female, mentioned in Say's description, and which does not exist in the real female of *M. barda*.

227. *Syrphus oetriformis* Walker is a rather peculiar *Eristalis*, represented by a single specimen in the Brit. Mus.

228. *Eristalis tenax*. I took this species for the first time in Cambridge, Mass., in November 1875; also several specimens in Newport, R. I., in October and November 1876. Since then, I have seen it from Georgia and Missouri (Collect. v. Roeder). It is strange that in my 20 years of North American collecting it had never occurred to me before.

229. *Eristalis philadelphicus*. The type, a single female, is in Mr. Bigot's collection; the yellow spots on the abdomen are somewhat

different from a typical *E. transversus*, but nevertheless I believe it to be the same species.

E. vittatus Macq. The description agrees with *E. transversus*, except that the eyes are said to be glabrous. But this statement is very probably erroneous, as, with the exception of *E. aeneus*, all the known N. A. *Eristalis* have pubescent eyes.

E. pumilus Macq., seems to be based on a very small specimen of *E. transversus*, in the variety with yellow anterior legs. I have not seen the type in Paris.

230. *Eristalis Androclus, frater, chalcipus* Walker, which I have seen in the British Museum, are *Helophilii* of the group of *H. borealis, groenlandicus, glacialis*. As it was not possible for me to determine their synonymy, I have omitted them in the lists.

231. *Plagiocera* being preoccupied by Klug, (Hymenoptera 1834), Mr. Loew gave another name to this genus. It was, I suppose an oversight on his part, that he omitted to state that *Pteroptila* was merely a new name for an old genus. Schiner (Novara, 366) was right in suspecting it.

232. *Helophilus*. Compare the paper on the European species of *Helophilus* by H. Loew, in the Stett. Ent. Zeitschr., Vol. VII; several North American species are described in it.

233. *Helophilus stipatus* and *H. Anaus's* Walker. I saw both in the Brit. Museum. The former, I thought, was *Hcl. lineatus* male. The latter, a greasy specimen, was undistinguishable, but the description shows it to be *H. lineatus*.

234. *Helophilus obscurus*. The patria as given by Mr. Loew in the Centuries (*Carolina*), was based upon an erroneous reading of the label.

235. *Eumerus porcus* Walker, which is a *Helophilus*, is a very peculiar species; it is represented in the Brit. Mus. by two (♂ and ♀) wellpreserved specimens. I have never seen it elsewhere.

236. *Helophilus susurrans* Jaenn. The synonymy does not seem doubtful; only *Hinterwand* should be read instead of *Seitenrand* in the description; without this emendation the comparison with *H. pendulus* has no sense.

237. *Teuchoenemis*. *Milesia Bacuntius* Walker, and *Pterallastes lituratus* Loew, are closely allied and must be put in the same genus. Both have, in the male, curved hind tibiae, with a strong projecting spur in the middle, a character which is wanting in *Pterallastes thoracicus* Loew. The latter was described by Dr. Loew in both sexes, and therefore must be considered as the type of the genus, while of *P. lituratus* Dr. Loew described only the female. Hence arose the necessity of establishing a new genus for the other two species.

238. *Teuchoenemis Bacuntius*. The specimens which I have from Texas do not quite agree with Mr. Walker's description of the thorax, nevertheless the identity is not doubtful.

239. *Merodon Bautias* Walker, is represented in the Brit. Mus. by a single male specimen; *M. bipartitus* by four specimens, two of which seem to be females of *M. Bautias*; the two others may be a different

species. The identification and synonymy of all the North American *Mallotae*, including even *posticata* and *Barda*, require a revision.

240. *Criorrhina armillata* O Sacken, Buff. Bulletin, 1 c. 9.

Black, thorax bronze color, with fulvous pile; face, antennae, tip of femora, tibiae and three basal joints of tarsi, yellow; tibiae with a black ring in the middle. Length: 11—12 mm.

Face and front above the antennae honey-yellow; upper part of front and vertex blackish-bronze color, with fulvous pile; a black spot on the cheeks; antennae yellow-ferruginous, arista black. Thoracic dorsum and scutellum greenish-bronze color, clothed with erect fulvous pile; pleurae and pectus black. Abdomen black, shining, clothed with black pile; a tuft of yellow pile on each side at the base. Halteres yellow. Coxae and about two-thirds of the femora black; the end of the latter, the tibiae, except a black ring in the middle of each, and the three basal joints of the tarsi are of a saturate yellow; the two last tarsal joints black. The proximal two-thirds of the wings are tinged with yellowish, the remainder is gray; the latter coloring extends along the posterior margin as far as the axillary excision; within the yellow portion, there is a hyaline spot in the angle between the first and second veins (at the proximal end of the marginal cell); the veins near the root of the wings are all tinged with yellow.

Habitat. Quebec (Mr. Bélanger). A single female specimen.

241. *Crioprora*, nov. gen. In a note to his description of *Brachypalpus cyanogaster*, Mr. Loew observes, that this species holds the middle between *Brachypalpus* and *Criorrhina*, that it has a remarkably projecting face and would deserve the establishment of a new genus. Since the publication of my Western Diptera, I have seen Dr. Loew's type of *B. cyanogaster* and have perceived at once that it belongs to the same group with my *Pocota cyniella* and *P. alopec* from California, which I had doubtfully referred to St. Fargeau's genus *Pocota* (Western Diptera, p. 339). At the same time, I have also seen the European *Pocota apiformis*, the type of the genus, and have become aware that my two Californian species, as well as *B. cyanogaster*, cannot be referred to *Pocota*. For this natural group of three species, I form therefore a new genus, and propose for it the name of *Crioprora* (κριοπρῶρος, with the face of a ram). The new group is characterized by the structure of its face, which forms a short snout, prolonged anteriorly, rather than downward, without tubercle in the middle and with an emargination at the tip; in the profile, the face is gently concave between the antennae and the oral edge.

Pocota is called by Schiner *Plocota* St. Fargeau; the latter author however calls the genus *Pocota*, probably from *Πόκος* sheepwool, and *Ποζῶω*, to cover with wool. Since I made this correction in my Western Diptera, p. 339, Mr. Verrall has drawn my attention to the fact, that in Walker's Ins. Brit. Dipt. I, 238, as well as in the Index, in Vol. III, the genus is correctly called *Pocota*.

242. *Milesia Amithaon* Walker, which I saw in the Brit. Mus., looks very much like a *Brachypalpus*.

243. *Xylota*. Among the species, described by Mr Walker, there are several, which I have never seen before, especially among those from the N. A. British possessions.

244. *Xylota Aepalius*, is not a *Xylota*; the specimen in the Brit. Mus. looks more like a *Brachypalpus*.

245. *Xylota vecors* O. Sacken, Bull. Buff. Soc. I. c. ♂ ♀.

Thorax brownish bronze-color, abdomen black; legs, including the coxae, ferruginous; end of hind femora, the hind tibiae and tarsi black. Length: 13—14 mm.

Face and cheeks black, with a greenish reflection and a delicate whitish down on the sides; antennae reddish-brown; front black, with some black, erect hairs. Thorax brownish bronze-color, with indistinct longitudinal greenish stripes; pubescence sparse, short, erect, brownish-yellow, mixed with black; a whitish-sericeous spot inside of the humeri; pleurae greenish-black, with blackish hairs; scutellum greenish bronze-color. Abdomen black, with a bluish or purplish reflection and scattered whitish and black hairs. Knob of halteres black, stem reddish. Legs ferruginous, including the coxae; the tip of the unguis brown; the distal third of the hind femora, the hind tibiae and hind tarsi black. Wings tinged with brownish, proximal half more hyaline; stigma dark brown.

Habitat, White Mountains, N. H. (E. P. Austin and H. K. Morrison). Three males and two females.

In general appearance, this species is very like the European *X. femorata*; but it differs especially in the color of the coxae, which in the latter are black. Minor differences are that in *X. femorata* the wings are more uniformly colored, less tinged with brown on the distal half, the stigma paler, etc.

Xylota curvipes Loew? (Bull. Buff. Soc. I. c.)

Among the specimens of *Xylota vecors* brought by Mr. Morrison from the White Mountains I found one, which is larger than the others (about 15 mm.), has altogether black coxae, the hind femora stronger and beset on the under side with yellowish hairs, longer and more conspicuous than similar hairs which exist in *X. vecors*; the hind tibiae, somewhat more strongly curved and ending in a short, stout spur; they are beset on the inner side with very conspicuous, long, erect black hairs; the halteres are altogether reddish; the antenlar arista dark brown, etc. Now all these characters, in which this specimen differs from *X. vecors*, belong to the European *X. curvipes* Loew, Neue Beitr. II, 19. As I have no specimen from the latter for comparison, I cannot settle the question of their identity, but I draw the attention of collectors to this undoubtedly distinct species. We have in this instance one of those curious cases of parallelism, as they so frequently occur between the two faunas. As *X. femorata* in Europe is supplemented by the closely resembling *X. curvipes*, the American representative of *X. femorata*, *X. vecors*, has alongside of it a species either identical with or closely resembling *X. curvipes*.

246. *Xylota euncida* Say. I am not sure whether I am right in

identifying this species with the one which is most common in New England, and agrees with Say's description, except that the antennae are more often dark than reddish; that the tarsi usually have the three last joints black, rarely two; the hind coxae in the male are armed with a spine. This last character prevents me from identifying this species with *X. quadrimaculata* Loew. I have not seen any original specimen of the latter. Loew seems to have identified *juncida*, as appears from the note in Centur. VI, 56. — Observe the genus *Micrap-toma* Westwood, Synopsis etc. p. 136, introduced for certain *Xylotae*.

247. On the European species of *Emerus*, compare Loew, Stett. Ent. Z., 1848, p. 108 and again Verh. Zool. Bot. Ver., 1855.

248. **Novum genus?** I seems evident that *Xylota badia* Walker is no *Xylota* at all, and that *Milesia notata* Wiedemann must be placed in the same generic group with it. Not having the means of ascertaining whether this is a new genus, or not, I leave the question open. The synonymy of *Eristalis intersistens* Walker with *Xylota badia* Walker is doubtful, as the description of the face does not quite agree; it is principally based on my recollection of the type at the British Museum.

249. On *Chrysochlamis*. Compare Loew, Verh. Zool. Bot. Ver. 1857.

250. *Spilomyia*. Compare, Loew, Centur. V, 33, *Nota*; but insert the word *non* before *clausa*.

251. *Temnostoma excentrica* Harris, and *T. aequalis* Lw. The latter, in all the numerous New England specimens which I have seen, has the femora black or brown, with the tips only more or less yellow. Harris describes the legs of his *Milesia excentrica* as „ochre yellow, except the shanks and feet of the first pair, which are black“. This agrees with some specimens from Illinois, which also have a more saturate-yellow abdomen and narrower black cross-bands than the New England specimens. The description of *M. excentrica*, which I prepared for the new edition of Harris' work was drawn from two western males of the above mentioned species. The female which I had before me at that time, was from Massachusetts, and I find now that I have a second female of the same kind from Lake superior; both differ from the western males (which I took for *T. excentrica*), as well as from *T. aequalis* in having two yellow dots on each side of the thoracic suture (like *T. alternans*), and not a yellow streak; the scutellum is darker, and its pubescence is black, not yellowish; the second abdominal segment has very little yellow, etc. — This may, after all, be the true *excentrica* Harris, although it is much rarer than *T. aequalis*. At all events I was wrong in uniting these females with those western males.

252. *Temnostoma Balyras*. The remark made by Mr. Jaennicke (Neue Exot. Dipt. p. 4) that the european *Temn. bombylans* occurs in North America, refers to this species. I adopt Mr. Walker's earlier name, under which I have distributed the insect to many collectors, the more so as the description is among the recognizable ones.

253. *Milesia limbiperis*. I have seen the type in Mr Bigot's

collection; it agrees with the specimen from Florida in the M. C. Z. Is it really a distinct species?

254. The history of this genus is as follows:

Sphecomyia. Latreille, Familles naturelles du Règne animal (1825), contains the name without any definition. The definition appeared in the Dictionnaire classique d'histoire naturelle (by Rey and Gravier, publishers, in Paris), Vol. XV, p. 545 (1829), as follows:

Sphecomyia. Genre d'insectes de l'ordre des diptères, établi sur une seule espèce, rapporté de la Caroline par Bose et très voisine de celui de *Chrysotoxæ*, mais très distinct par un caractère unique dans cet ordre d'insectes, celui, d'avoir la soie des antennes insérée sur le *second* article; cet article, ainsi que le précédent est long, presque cylindrique; le troisième ou dernier, est beaucoup plus court. La soie est simple. Ce genre a été indiqué pour la première fois dans notre ouvrages sur les familles naturelles du règne animal, mais sans signalement. L'espèce qui lui a servi le type sera consacrée au célèbre naturaliste précité.

Latreille however never described this type of the genus, and it was Macquart who saw Bose's and Latreille's original specimen in the Museum at Paris, and averred that it was the same as *Chrysotoxum vittatum* and *Psarus ornatus* of Wiedemann (Dipt. Exot. II, 2, p. 18, 1841).

Latreille's statement that the arista is inserted on the *second* antennal joint is, of course, erroneous. Macquart further mentions, l. c., that in the Berlin Museum this genus figures under the collection-name of *Epopter*. Gorski, in his *Analecta ad Entomographiam*, etc., 1852, proposes the generic name *Tyzenhausia* for the European species of the same genus. It occurs only in Eastern Europe (Sweden, Norway, Finland, Lithuania), and is very like the North American species. Wahlberg Ofvers. Vetensk. Acad. Forhandl., 1854, p. 155) gives a detailed description of it.

Mr. V. von Roeder, to whom I sent an american specimen of *S. vittata*, compared it to the european *S. respiiformis*. He found only very slight differences, which would hardly justify a separation; his specimen of *respiiformis* (from Finland), has the yellow stripe on the pleura interrupted, which is not the case in the american *S. vittata*; the black cross-bands of the abdominal segments were broader in *respiiformis*, which, according to Mr. v. Roeder may be explained by the abdomen of his specimen being more drawn out. The figure, given by Gorski, certainly looks exactly like *S. vittata*. Still, Dr. Loew, if I recollect right, considered them as different species.

255. *Mixtemyia ephippium* O. Sacken, Bull. Buff. Soc. l. c. ♂.

Face yellow, with a brown stripe in the middle, which does not quite reach the antennae; the latter brown; second joint almost black; triangle of the vertex dark brown. Thorax dark brown; a brownish-yellow angular line runs from the scutellum, above the root of the wings, turning inside to follow the thoracic transverse suture and stopping before meeting the corresponding line on the other side; a less distinct angular line, on the anterior part of the thorax, begins on each side,

at the yellow humeral tubercle, follows the anterior margin of the thorax and before reaching its middle, turns backwards; in the middle of the anterior margin, between the two angular lines, two delicate, short parallel yellow lines are perceptible. Scutellum brown in the middle, with yellow borders. Pleurae brown; a yellow spot above the root of the front coxae. Abdomen light brown; second segment with an arcuated yellow stripe, resting with its middle on the anterior, with its ends on the posterior margin, which is also yellow; the inside of the semi-circle thus formed, is dark brown, velvety; the third and fourth segments are clothed with a fine sericeous down; the third has a distinct tubercle in the middle and is margined with yellow posteriorly; the fourth is traversed by a yellow cross-band in the shape of an inverted V, the ends of which do not reach the lateral margins; hypopygium brown. Anterior half of the wings brown, the posterior hyaline; the anal cell, the second posterior, the discal and a part of the first posterior cell, as well as the whole posterior margin, including the alula, being hyaline (in *M. quadrifasciata* the second basal cell and the whole portion of the first basal, situated behind the spurious vein, are also hyaline). Legs; femora dark brown, the hind ones with a strong tooth on the underside; tibiae yellowish-brown, pale yellow at the base; front tarsi brown; middle and hind ones reddish-brown, two or three last joints brown.

Length: 12 mm. *Hab.*, Mexico.*)

256. Compare H. Loew's *Ceria* in his *Neue Dipt. Beitr.* I (1835).

257. See the papers by Loew:

1. Ueber die Ital. Arten d. Gatt. *Conops*, in *Dipterol. Beitr.* III (1847).
2. *Conops*, in *Neue Dipt. Beitr.* I, p. 20 (1853); in the latter several N. A. species are described.

258. *Conops pictus* Fab. According to Loew, in *litt.* the *C. pictus* Wiedemann. *Auss. Zw.* II, 239, 7 is a different species from *pictus* Fab. In Macquart, the specimens, received from Serville, are *pictus* Fab.; the others *pictus* Wied.

259. *Stylomyia confusa* Westw. I have but little doubt about the identification of this species, Westwood's strictures on Fabricius's, Wiedemann's, and Macquart's descriptions notwithstanding. There is some confusion in Wiedemann's description, when he speaks of the *Hinterleibsgrieffel* of the male. The Brazilian specimens may somewhat differ in coloring, or perhaps constitute a different species, in which case Say's name would have to be adopted for the North American species. (Since writing the above I found substantially the same statement by Loew, in Schaum's *Jahresbericht* 1851, p. 133.)

260. Dr. Schiner in the *Verh. Zool. Bot. Ver.* 1857 is in error when he states that the name *Stachynia* was introduced by Macquart in

*) **Observation.** The notes 196—200, 210, 212—214, 215, 217, 226, 232, 234, 236—238, 240, 245—247, 249—251, 254, 255 are reprinted, with some emendations, from my List, of the North American Syrphidae, in the *Bulletin of the Buffalo Society of Nat. History*, Decemb. 1875.

the *Suites à Buffon*; an error however, which was due to Macquart himself, who did not allude to his previous publication.

261. There is a paper by F. Walker, *Observations on the British species of Pipunculidae* (Entom. Magaz., Vol. II, 1835, p. 262—270.) Also a survey of the Swedish species by C. G. Thomson, in his *Opuscula entomologica*, Stockholm 1870, p. 109.

262. *Oestridae*. Compare Brauer, *Monographie der Oestriden*, Vienna 1863; with numerous plates of the imago, larvae and pupae. The full synonymy of all the species enumerated will be found in this work, as well as the literature.

263. *Tachinidae*. I have principally followed Schiner's distribution (in the *Fauna Austriaca*).

264. On *Ocyptera* see Loew, Stett. Ent. Z. 1844, p. 226, 266; also 1845, p. 170. Winnertz, Stett. Ent. Z. 1845, p. 33.

265. *Dejeania corpulenta*. I have seen Wiedemann's type in Vienna, which is my *D. cecatrix*. *D. rufipalpis* Macq., in Mr. Bellardi's collection, is the same species. I have been misled by Macquart's false identification of Wiedemann's species.

266. *Dejeania rutilioides*. I have seen Mr. Jaennicke's type in the Museum in Darmstadt and recognize in it the Tachinid which I mentioned in the *Western Diptera*, p. 34, line 8 from the end.

267. *Tachina vivida*. Mr. Harris described this species in 1841; there existed at that time a *Tachina vivida* Wiedemann, *Auss. Zw. II*, p. 312 (1830). Wiedemann's *Tach. abrupta* would thus have the priority, if its identity with *Tach. vivida* Harris was ascertained.

268. For *Micropalpus flavitarsis* Macq. and *ornatus* Macq., as well as for a considerable number of other south american species, Dr. Schiner (l. c.) introduces the genus *Saundersia*, as these species have nothing in common with *Micropalpus*, but the rudimentary palpi.

269. I take *Nemo-aea* in the sense of Schiner as embracing *Erigone* and other genera of R. Desvoidy.

270. *Exorista* in the sense of Schiner, involves the genera *Lydezza*, *Zenillia*, *Carellia* and in part *Winthemia* of Rob. Desvoidy. I have also included in it all the species which Mr. Walker described under the head of *Aplomyia* R. D. Myod. p. 184, for the reason that Rob. Desvoidy calls this genus intermediate between his *Winthemia* and *Carellia* and that, in his later work (*Dipt. des envir. de Paris*, I, p. 459) he adopts for the type of the genus *Tachina confinis* Fallen, Zetterstedt, which is an *Exorista*.

271. *Belvoisia bifasciata*. The larva, according to Macquart, was bred by Boisduval from the chrysalis of *Cerocampa regalis*; Mr. Riley obtained it from *Dryocampa rubicunda* Fabr.

272. *Metopia*. I take this genus in the sense of Schiner as embracing *Araba* and *Ophelia* of Rob. Desvoidy.

272 a. A detailed definition of the genus *Eurygaster* and of its relationship to other genera of *Tachinidae*, is given by Nowicky, *Beitrag z. Kenntniss d. Dipterenfauna Neuzeelands*, Krakau 1875, p. 28.

273. Compare: *Monograph upon the British species of Sarcophaga*,

or flesh-fly, by R. H. Meade in the Entomologist's Monthly Magazine, Vol. XII, p. 216. (February — May 1876); also Rondani, *Sarcophagae italicæ*.

Mr. Meade had the kindness to examine a collection of Sarcophagæ from North America, (belonging to the Museum of Comparative Zoölogy) for the purpose of comparing them to the European species. He arranged the collection according to the plan, adopted in his monograph and made out 24 distinct species of the restricted genus *Sarcophaga* (with black palpi) and four species belonging to the genera *Peckia* Desv. (Phrissopoda Macq.), *Cynomyia* Desv. and *Theria* Desv. He adds: „I am doubtful whether any of the species is absolutely identical with a European species, unless it be with *Sarcophaga similis*, which closely resembles *S. carnaria*. There is no specimen in your collection, however, exactly like the true *S. carnaria*, so common in Europe. — There are some striking points of difference between the Sarcophagæ of America and Europe generally, the chief of which is that in the former, the species with one or both anal segments red or yellow, largely predominate, while among the latter, those with the anal segments black or gray, are much more numerous than those with the red.“

The specimens alluded to as resembling *S. similis* Meade, were collected in the Rocky Mountains, Colorado and on the northern shore of Lake Superior.

273 a. *Idia*. Compare Loew, Die europäischen Arten der Gattung *Idia* (Stett. Entom. Z. 1844, p. 15—25).

274. *Calliphora mortisequa*. Kirby says: „this seems to be the American representative of *Musca vomitoria*“ and states the differences. However, the cheeks being described as red, he must mean either *M. erythrocephala* or its representative.

275. *Calliphora obscoena*. Eschscholz says: „exceedingly like *Musca carnivora*.“ *M. carnivora* Fabr. = *Calliphora vomitoria*.

276. *Calliphora stygia*. Schiner, Novara, p. 309, observes and probably with good reason, that Fabricius meant *New-Zealand* and not Newfoundland. Schiner had a number of specimens from Sydney, agreeing exactly with Fabricius's and Wiedemann's descriptions.

277. On the distribution of Anthomyiidae in genera, compare:

Rondani, Dipterologiae Italicae Prodrum, Vol. VI, Parma 1877.

R. H. Meade, On the arrangement of the British Anthomyiidae (Entomologists Monthly Magazine, February, March 1875), where a useful analytical table of the genera is given.

Loew, Die deutschen Arten d. Gatt. *Azelia* R. Desv. (Entomologische Miscellen, herausgegeben vom Schles. Entom. Ver. 1874. 41 pages.)

Compare also Haliday's note, in Westwood's Synopsis, p. 143.

R. H. Meade Esq. in Bradford, Yorkshire England, has had the kindness to examine a collection of North American Anthomyiæ, sent to him by me. The result of this examination is embodied in an article:

Notes on the Anthomyiidae of North America. (Entomologists Monthly Magazine, April 1878, p. 250—252.)

He sums up his comparison as follows:

„On looking over the collection, it struck me, in the first place, „that the number of species was small in proportion to the number of „specimens; and next, that the number of smaller and feebler species „was greater in proportion to that of the larger and more highly „developed forms, than occurs in Europe. I only determined 121 species „in the collection. There were few, if any, peculiar forms among them; „they could all be arranged in the same genera as the European species; „they had the same sombre colours and ordinary forms, which are so „familiar to us; and many of the common European kinds were so „closely represented, that it was difficult to say, in some instances, „whether they were exactly the same, or closely analogous species.“

278. Schiner, Fauna Austr., Dipt. I, p. 644, quotes *Anthomyia brassicae* Bouché as a synonym of *A. ruficeps* Meig., but with a doubt.

279. Schiner, l. c. p. 643, quotes *A. ceparum* as a synonym of *A. antiqua* Meig.

280. M. Walsh describes in the same place the larva-stages of two other Homalomyiae, *H. Leydii* and *H. Wilsonii*, the imago of which is not known.

281. *Dialyta*. About this genus, see Loew, Wien. Entom. Mon. II, p. 152.

282. *Lispe*. On this genus comp. Loew, Stett. Zeitung, 1847, p. 23—32.

283. About the systematic location of *Schenomyza*, compare Loew, Centur. X, 73, nota.

284. *Cordylura*. Compare Haliday's note in Westwood's Synopsis, p. 143—144; see also *Scatophaga* ibid. There is a paper by Prot. C. Rondani, Scatophaginae Italicae.

285. Schiödte (Berl. Ent. Zeit. 1859, p. 153) seems to be in doubt about the interpretation of the *Musca stercoraria* of O. Fabricius, as well as of the two following species, *M. scybalaria* and *cloacaris* (Fn. Groenl. 161—163).

286. Compare the monographic essay by Loew: Ueber d. Europ. Helomyzidae, in the Schl. Zeitschr. f. Entom. 1859.

287. *Elepharoptera defessa*. The detestable figure appended to my description of this species, was published without my knowledge and consent.

288. See the paper: On the North American Sciomyzidae, by H. Loew, in the Monogr. of N. A. Diptera, I, p. 103.

289. „*Tetaneocera Boscii* is characterized so insufficiently, that there is no possibility to identify it. *T. canadensis* is also unknown to me. *T. guttularis* Wied. is mentioned by Macquart as a native of N. Am., but I must consider this statement as a mistake, since the characters he gives do not agree with the description of *T. guttularis* Wied.; but

what species he has mistaken for *T. guttularis* I have not as yet made out." Loew, Monogr. I, p. 108.

290. *Loxocera*. On the European species, see Loew, Schles. Ent. Zeit. 1857.

291. *Calobata lasciva* Fab., Wied. = *albinana* Macq. I assume the synonymy on the authority of Schiner, who had the advantage of comparing Wiedemann's types. I do not pretend to decide, whether Macquart is right in referring to the same species the specimens from Cuba, Philadelphia, Java and Port Jackson.

As to *Taenioptera trivittata*, Macquart, Dipt. Exot. II, 3, p. 240, says: "The genus *Taenioptera*, which I established in the *Suites à Buffon*, has for type a species allied to some exotic *Calobatae*. I suppress it." The reason is not given, but the probable cause may have been the loss of the original specimen, which would explain why Macquart, in giving up the genus, never mentions the species again. I look upon the synonymy of *C. albinana* Macq. (which is a *Taenioptera* in Macquart's sense), with *T. trivittata* Macq. as certain. Compare also Loew, Besch. Eur. Dipt. III, p. 254.

292. About the European, as well as the exotic *Micropezae*, compare Loew, Berl. Ent. Zeit. XII, 1868, p. 161—167, also pag. 393.

293. The third volume of the Monographs of the N. A. Diptera (1873) contains a monograph of the N. A. *Ortaliidae* by Dr. Loew, with an introduction, concerning the classification of the *Ortaliidae* in general, and a review of the work of previous authors on the same subject; however, no notice is taken of the new genera published by Dr. Schiner (*Novara* etc.); nor of Prof. Rondani's *Ortaliidinae italicæ*. The article by Dr. Loew: *Die N. A. Ulidina*, in the Berl. Ent. Zeitschr. 1867, p. 283, was the precursor of his larger publication, but also contains South-American species.

294. *Oxycephala fenestrata* and *O. fuscipennis*. I have seen the types of both in the Museum of the Jardin des Plantes. *O. fenestrata* seems to be a different species.

295. *Pyrgota valida*. When Mr. Loew set aside this name, as a mere catalogue-name, he overlooked its publication by Mr. Harris in the Ins. Inj. to Vegetation.

296. *Ortalis Ortœ'a*. The specimens in the Brit. Museum bearing this name are *Chaetopsis aenea*.

297. *Herina splendens*. I owe this synonymy to Mr. v. Roeder.

298. *Urophora nigriventris* Macquart. Dr. Loew, in the Monogr. etc. Vol. III, p. 337, says about this species that it is a Trypetid of doubtful systematic position; but not an *Urophora*. Macquart's description made me suspect that this was simply *Camptoneura picta*. As I had overlooked this species, while examining Mr. Bigot's collection in Paris, I wrote to him about it, and he kindly informed me, that „after a careful comparison of the types in his collection, labelled in Macquart's own handwriting, he finds no difference between *U. nigriventris* Macq. and *Camptoneura picta* Macq."

299. *Tephroneta humilis*. In the Monographs, III, p. 125; Mr. Loew rejects the earlier name given to this species by Mr. v. d. Wulp, on the ground that „it has been preoccupied by Fabricius“. This cannot be sustained, as neither of the two generic names, *Herina* or *Tephronota* existed at the time of Fabricius.

300. *Trypeta Narytia* Walker. There are four specimens in the Brit. Mus.; two of them are *Chactopsis aenea*, and one of these bears Walker's label „Narytia“, the two others, marked „Florida, Doubleday“, seem to be *Tephronota humilis*.

301. *Euxesta annonae*; Schiner, Novara etc., p. 283, places this species in the genus *Amethysa* Macquart (Hist. Nat. Dipt. II, p. 440) together with *Urophora aenea* Macq. (l. c., p. 458), from Columbia, S. America.

302. *Idiotypa* Foerster, Proctotrypidae 1856, has the priority.

303. See the papers of Mr. Loew: „On the North American Trypetidae“ in the Monogr. of the N. A. Dipt., Vol. I. and „Review of the N. A. Trypetina“, in the Monogr. etc., Vol. III. On the European Trypetae, see the large work of Mr. Loew: Die Europäischen Bohrfliegen, Wien 1862; in folio, with 26 plates of magnified photographs. The literature about the Trypetidae will be found in Schiner's: *Diptera Austriaca, Die Oesterr. Trypetiden*; Wien, 1858.

304. Schiner (Novara etc., p. 263) draws attention to the probable identity of *Leptoxys* with *Anastrepha*. But this identity seems certain, owing to the fact that Macquart himself, in the Dipt. Exot. II, 3, p. 216, mentions the *Dacus serpentinus* Wied. as belonging to *Leptoxys*. Macquart, l. c. improves *Leptoxyda* in the more correct *Leptoxys*. (I find in Agassiz „Index universalis“ *Leptoxys* Rafinesque, 18., Mollusca.)

305. *Eurosta*, Loew, 1873; *Eurostus*, Dallas, Hemipt. 1851.

Peronyma, Loew, 1873; *Peronymus*, Peters, Volitantia, 1868.

Euxesta, Loew, 1867; *Euxestus*, Wollaston, Erotyl. 1858.

Euolena, Loew, 1873; *Ecolenes*, Le Conte, Carab. 1853.

Pterocalla, Rondani, 1848; *Pterocallis*, Passerini, Hemipt. 1863.

All these names do not interfere with each other, according to my opinion, and can remain. Should a change be thought necessary, add the syllable *Neo*.

306. *Icaria* Saussure, Vespidae 1858, has the priority.

307. *Aspilota* Foerster, Braconida 1862.

308. *Trypeta alba*. Mr. Riley told me that he bred it from seeds of *Vernonia*. I found it abundantly on the flowers of that plant.

309. About the systematic position of the *Lonchaeidae*, and especially of the genera *Palloptera* and *Lonchaea*, compare Loew, in Monogr. etc. III, p. 8—10. — About the European species of *Palloptera*, compare Loew, Schles. Entom. Zeitschr. 1857. Do not overlook Haliday's note about these genera in Westwood's Synopsis of the genera of British Insects, p. 150, at the end of Vol. II. of his Introduction.

310. Compare Loew: die Europ. Arten der Gatt. *Sapromyza* in his

Dipterol. Beiträge. III, p. 25 (1847). Also some further remarks in *Šchles. Entom. Zeitschr.* 1857; also *Drepanophora*, n. gen. of Sapromyzidae, in *Berl. Ent. Zeitschr.* XIII, p. 96. See also Haliday's note, quoted above, in Nr. 309.

311. *Sapromyza vulgaris* Fitch (*Chlorops*). It is easy to recognize this species in the description of Dr. Fitch and in the figure. The description of *Chl. antennalis* Fitch evidently contains some clerical error, as it describes the antennae as plumose and alludes to those of *Chl. vulgaris* as *not* plumose, while the latter are represented as plumose in the figure. Mr. Loew followed the letterpress and not the figure, and hence called *antennalis* the species in which I recognize *vulgaris*. (See Loew, *Zeitschr. f. Ges. Naturw.* XXXVII, p. 117.)

312. About *Coelopa*, compare *Stenhammar*, Copromyzinae Scandinaviae, 1853.

313. About the species of *Heteroneura* occurring in Europe, compare Loew, *Wien. Ent. Monatsschr.*, Vol. I, 1857, p. 51, and *Berl. Ent. Zeitschr.* VIII, p. 334—346.

314. Loew, *Centur.* Vol. II, p. 289, proposes to revive, instead of *Anthophilina*, the older name of this genus *Anthomyza* Fallen, *Spec. n. Entomol.* 1810. The same argument is adduced by him in the *Jahrb. d. k. k. Gel. Ges. in Krakau*, Vol. XLI. But it seems to me that *Anthomyza* is too much like *Anthomyia* and that there is a serious objection against using names, so nearly alike, in the same order of insects. Furthermore, as the name *Anthomyza* has been used by Zetterstedt in the sense of *Anthomyia*, its reinstatement, in a different acceptation, would be misleading. We have therefore the choice between *Leptomyza* Macq. (1835) and *Anthophilina* Zetterstedt (1838). Dr. Schiner adopted the former, which, I suppose is the right course; but until the question is decided, I retain the three north american species under the name of *Anthophilina*, under which they were originally published by Dr. Loew.

315. On the european *Opomyzae*, see Loew, *Berl. Ent. Zeitschr.* IX, 1865, p. 26—33. On *Balioptera*, l. c. VIII, 1864, p. 347—356. The subgenus *Tethina* Haliday, in Westwood's *Synopsis*, p. 152, seems to have been overlooked.

316. *Sepsidae*. The following papers may be consulted—

1. Walker, F. Observations on the British *Sepsidae* (*Ent. Magaz.* 1833, p. 244—256).
2. Loew, H. Ueber die Gatt. *Saltella* überhaupt etc. (*Stett. Ent. Z.* 1841, p. 182—193). Contains useful systematic and historic data about *Sepsidae* in general.
3. Staeger, C. Systematisk Fremstilling af den danske faunas Arter af Antliatslaegten *Sepsis* Kröyer's *Tidskr.* 1845, p. 22—36).
4. Van der Wulp. Jets over de in Nederland waargenomen *Sepsinen*. (*Tijdschr. v. Ent.* Ser. 1, Vol. VII, p. 129—144, with a plate).

317. *Ephydridae*, as preferable to *Ephydrinidae* is adopted by Loew, in *Centur.* Vol. II.

On this family, consult the following papers:

Haliday, Remarks on the generic distribution of the british Hydromyzidae (Annals of Nat. Hist. 1839, Vol. III).

Stenhammar, Försök till Gruppering och Revision af de Svenska Ephydrinae, in the Kongl. Vet. Ac. Handl. 1844.

H. Loew, On the North American Ephydrinidae, in the Monogr. etc. I, p. 129 (1862), where a definition of the genera will be found.

H. Loew, Die Europäischen Ephydrinidae, Neue Dipt. Beitr. VII, 1860. This paper, together with the preceding are very important.

H. Loew, Die Gattung Canace, in the Berl. Ent. Z. 1874, where some further suggestions about the classification will be found.

318. *Ephydra halophila* Packard. The name cannot stand, as there is *Cacnia halophila* v. Heyden, which is an *Ephydra*.

319. *Ephydra oscitans* Walker. Whether the synonymy that I suggest is adopted or not, the name must be dropped, as there is another and earlier *E. oscitans*, also by Walker in List etc. IV, p. 1106 (see under *Scatella*).

320. On the european Geomyzidae, compare Loew, Berl. Ent. Z. IX, 1865, p. 14—25; on *Diastata*, ibid. VIII, p. 357—368.

321. *Phortica* Schiner is not interfered with by *Phorticus* Stål, Reduvida 1860. *Amiota* Loew was published in the same year with *Phortica*, a few months earlier, but has never been characterized. Ten years after its publication, a few words of explanation appeared in the Centuries, Vol. II, p. 288, to establish its identity with *Phortica*.

322. *Chlorops*, *Oscinis*, *Siphonella*. About the relation of these genera to each other and their respective limits, compare Loew, Wien. Ent. Monatschr. Vol. II, the article: Zwanzig neue Dipteren, in the note to No. 11, *Oscinis gilripes*.

For the subdivisions of *Chlorops*, in the sense of Macquart, see Loew, Ueber die bisher in Schlesien aufgefundenen Arten der Gattung *Chlorops*, in the Schles. Zeitschr. f. Ent. 1866. Contains much more than its title implies, and is an elaborate monograph of the genus.

323. In the Jahrbuch der K. K. gelehrten Ges. in Krakau (1870), p. 15, Mr. Loew says that *Gymnopa*, on account of its venation, should be placed among the *Ephydridae*. But as he does not state to what group in that family it should be referred, and as, in the list of Diptera, appended to that same article, *Gymnopa* is left in its old place among the *Oscinidae*, I will follow his example here. In the same place Mr. Loew, explains why the older name of the genus, *Mosillus*, should be rejected. Whether his grounds are sufficient, I do not pretend to decide; but that *Mosillus* has not been entirely overlooked between its publication in 1804 and its reinstatement by Schiner, is proved by a curious passage in the Preface of Wiedemann's Auss. Zw., I, p. XI (1828), in which he speaks of *Mosillus* as something wellknown to him, and refers to it (erroneously?) the *Sargus aeneus* of Fabricius.

An earlier article by Mr. Loew on *Gymnopa* (Stett. Ent. Z. 1848) discusses the european species, and not the systematic position of the genus.

324. About *Rhinoëssa* and its european species, see Loew, Berl. Ent. Z. 1865, p. 34.

325. *Milichia*. Compare Loew, Stett. Ent. Zeitung 1843, p. 310, 322.

326. *Cacoxenus*. About this genus and the related *Milichia*, *Lobioptera* etc., compare Loew, Wiener Ent. Mon. 1858, p. 213.

327. *Aulacigaster*. I place it among the *Agromyzidae*, on the authority of Loew *in litt*.

328. *Ochthiphila*, Compare Schiner, Verh. Zool. Bot. Ges. 1867, p. 325; also Loew, Wien. Ent. Mon., 1858, p. 219, in the article about *Cacoxenus*.

329. *Sigaloëssa*, compare Schiner, Novara etc., p. 238, where some further remarks about the genus will be found.

330. About *Asteia* or *Astia*, compare Loew, Berl. Ent. Zeitschr. II, p. 114, where a new genus *Perisceclis* is introduced.

331. Compare Stenhammar, Copromyzinae Scandinaviae, Stockholm 1855; (originally in Vetensk. Akad. Förhandl. 1853, p. 257—442): A monograph of the family, including the genera *Coclopa*, *Copromyza*, *Limosina*, *Sphaerocera*, *Orygma*.

An earlier paper by Haliday: British species of the dipterous tribe *Sphaeroceridae*; in the Entom. Magaz. 1836.

332. *Borborus venalicus*, n. sp. Head brownish-red, vertex darker brown; several whitish-pollinose dots on the front, near the eyes, and on the vertex; antennae brownish-red. Thorax brown, with longitudinal rows of dots of gray pollen; a pair of similar spots at the tip of the scutellum. Abdomen blackish, hind margins of the segments whitish. Wings faintly tinged with yellowish; a transverse brownish spot at the base of the submarginal cell and another at the tip of the third vein. Legs yellowish; femora darker: front tibiae with one, middle and hind tibiae with two dark brown rings. Length: 2—3 mm.

Hab. Cuba. Dr. Loew (*in litt.*) informs me that this is an african species; and as I found it abundantly in Cuba, it seems probable that it was brought over in slave-ships.

333. *Hippoboscidae*. Compare:

1. W. E. Leach, On the genera and species of Eproboscideous Insects. (In the Mem. Wernerian Society, Edinb. 1818, p. 547—566, with three plates; the memoir was presented in 1810).
2. Rondani, Hippoboscita Italiana. (In the Bolletino Soc. Entom. Ital. 1878; at my writing the paper is announced as being in the press.)

334. *Ornithomyia confluenta* Say will, I suppose, form a new genus, on account of its peculiar venation. An apparently different species of the same group was found by Mr. Wm. Holden on *Accipiter fuscus*, near San José, Cal. (M. C. Z.).

335. Compare:

1. Westwood, Necteria, a genus of wingless insects, in the Trans. Zool. Soc., Vol. I, p. 275 (1834).

2. Kolenati, Beiträge z. Kenntniss der Phthirio-Myiarien; Versuch einer Monographie der Aphanipteren, Nycteribien und Strebliden (in the Horae Entom. Rossicae, Vol. II, 1863, p. 11—109, with XV plates), a very superficial performance according to Gerstaecker's opinion (Entom. Bericht für 1864—65, p. 126). The combination of *Aphaniptera* and *Nycteribiae* into a common subdivision is certainly an absurdity.
 3. Gerstaecker, Sitzungsab. d. Ges. d. Naturforsch. Freunde in Berlin, 18. Februar 1862, on the existence of halteres on *Nycteribiae* (extracted in Gerstaecker, Entom. Ber. 1862, p. 215).
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ADDITIONS AND CORRECTIONS.

I. To the list of **Authorities** add:—

COSTA, Achille.—In *Annuario del Museo Zool. Univ. di Napoli*, II, p. 151, 1864.

N. sp. *Systropus Sallei* and *S. funereus*, both without indication of locality, but both evidently Mexican; the first, a species very frequently met with in collections (also in the M. C. Z.); the second, a synonym of *S. foenoides*, Westm.

I discovered these descriptions accidentally, in looking over Mr. Bigot's library. The diagnosis of *S. Sallei*, which I reproduce, will be fully sufficient for its recognition.

Systropus Sallei.—Niger, antennis, peristomate, thoracis vitta utrinque antice T-formi maculisque duabus ad scutelli angulos baseos, pedibus anterioribus basi excepta, et posticorum apice femorum et tibiae tarsi articulo primo flavis; metathorace flavo, maculis quatuor rectangulis nigris; abdominis segmentis 1—4 infra pallidis; alis cinereo-hyalinis, venis fuscis.—Long. mill. 22.

II. **Dates of the first publication of genera.**—In preparing this Catalogue for the press I did not have Latreille's works at hand, I had to rely on Schiner, but have discovered the following errors since:—

Phora was published in Latreille, *Précis*, etc., 1796.

Simulium, *Beris*, *Pipunculus*, *Scenopinus*, *Ochthera*, *Ornithomyia*, *Melophagus*, *Nycteribia* appeared in Latreille, *Hist. N. des Crust. et des Ins.* Vol. III, 1802 (and not Vol. XIV, 1804, as Dr. Schiner has it).

Asyndulum, *Rhyphus*, *Hermetia*, *Psarus*, *Paragus*, *Milesia*, *Eristalis*, *Ploas*, *Ocyptera*, *Phasia*, *Oscinis*, *Sepedon*, *Tephritis*, *Laucania* appeared in the *Dictionn. d'Hist. Natur.*, Déterville, Vol. XXIV, 1804, and also in *Hist. Nat. des Crust. et des Ins.*, Vol. XIV, in the same years 1804. The publication in the *Dictionnaire* is generally quoted as the earlier one; it would be better, perhaps, to quote both.

In all these cases Agassiz's Nomenclator gives the correct dates. *Echinomyia*, Duméril, was published in 1801; in giving the date 1798, I was led into error by the obituary notice of Duméril, in the *Annales de la Soc. Entom. de France*, 1860, p. 653, where that date is given.

The name *Tetanocère* appears for the first time in the same publication of Duméril's (1801), but is translated *Tetanocerus* in his *Zool. Analyt.*, 1806. Latreille adopted it as *Tetanocera* in his *Hist. Natur. des Crust. et des Ins.*, Vol. III (1802). Schiner is again in error here.

On page 223, in the note 47^a, sixth line, for Latreille, H. N., etc., 1804, read Latreille, Précis, etc., 1796.

III, p. 17. Family **Blepharoceridæ.**

Since my arrival in Europe I have had opportunities of a closer study of the Blepharoceridæ, and have come to the conclusion, that *Bleph. yosemite* should rather be considered a *Liponeura*, its broad front being in this case a character of higher order than the differentiation of the facets of the eyes in two portions (with larger and smaller facets). I published this fact in an article entitled, *Bemerkungen über Blepharoceriden* (*Deutsche Entomol. Monatschr.*, 1878, p. 405-416), in which many other remarks, supplementary to Loew's *Revision*, etc., are incorporated.

In looking over Mr. Bigot's collection in Paris, I observed in it an undescribed Blepharocera (a female), likewise from California, and very remarkable for having the venation exactly like *Liponeura yosemite*, although its contiguous eyes make it a *Blepharocera*. A deep groove divides the eyes in two portions, but there is no strip without facets, as in the two species of *Blepharocera* hitherto described. The identity of the venation of this species, which I call *Bl. ancilla*, with that of *L. yosemite*, would seem to prove that it is the venation, which in this case is a character of higher order than the structure of the front. Many such discoveries would tend to obliterate the limit between the genera *Blepharocera* and *Liponeura*.

Blepharocera ancilla, n. sp.; female; Gray; thoracic dorsum brownish, with paler longitudinal lines; abdomen brownish, incisures yellowish; antennæ brownish-yellow, brownish towards the tip; legs brownish-yellow; tips of femora brownish; tarsi brown; knob of halteres infuscated; wings subhyaline; veins brownish-yellow; venation similar to that of *Lipon. yosemite*. Length, 7 mm.

Hab. California (collection of Mr. Bigot, in Paris).

The antennæ have nothing unusual in their structure; they are a little longer than the head, 14-jointed; first joint short, nearly of the same length with the second, but a little stouter; first joint of the flagellum a little longer than the two following joints taken together; the other joints short-cylindrical, becoming gradually shorter towards the tip; the last

inverted-turbinate; pubescence of antennæ short, without any longer hairs.

Eyes contiguous in front of the ocelli, slightly diverging lower down, and leaving room for a narrow, triangular front between them. A deep groove divides each eye in two halves; the upper portion, having the larger facets, is a little longer than the lower portion. A strip destitute of facets is not perceptible in that groove.

Legs rather strong, especially the hind femora; front coxæ at a considerable distance from each other; those of the middle pair are more approximate, those of the hind pair are contiguous; hind tibiæ with a pair of distinct spurs, the inner one by far the longest; spurs on middle tibiæ very minute; I do not see any on the front pair; hind tarsi equal in length to $\frac{2}{3}$ or $\frac{3}{4}$ of the hind tibiæ.

Wings like those of the other Blepharoceridæ as to shape, secondary venation, and chitinous incrassation in the axillary excision. Submarginal cell short, provided with a petiole about equal in length to the abbreviated vein of the posterior margin. A crossvein connects the second vein with the fourth; another crossvein connects the fourth with the base of the large fork of the fifth vein. (In other words, the venation is like that of *Liponeura yosemitæ*; also like that figured in Loew, Revision, etc., fig. 5, with the exception, as to the latter, of the structure of the submarginal cell, as stated above.)

The *ovipositor* consists of two short, rather obtuse lamels.

IV, p. 92, **Comastes**.—The genus *Heterostylum*, Macq., 3d Suppl., p. 35, is the same as *Comastes*. The principal character, assigned to it by Macquart, pubescence of the third antennal joint, has no existence in reality; Macquart mistook dust for a pubescence! I saw the original type in Mr. Bigot's collection. I do not think that under such circumstances the older name has any claim to priority, especially in this case, where that name is derived from the very character whose existence is disproved.

V, p. 134, below **Helophilus polygrammus**, Loew, is a synonym of *H. mexicanus*, Macq. I saw many Mexican specimens in Mr. Bigot's collection.

VI, p. 181, line 16 from bottom. Strike out the (?) before *Oxycephala maculipennis*; I saw Macquart's type in Mr. Bigot's collection.

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